

OFFICE OF THE STATE FIRE MARSHAL

---

# FIRE EXTINGUISHER STUDY GUIDE

---



January 2003 Edition

---

**FIRE EXTINGUISHER PROGRAM**

1131 S Street  
Sacramento, California 915814  
(916) 445-8376

<http://osfm.fire.ca.gov>

**California Health and Safety Code**

**Sections 13160-13190**

**Fire Extinguishers**

**Index**

**Article**

1. General Provisions
2. Licensing
3. Certificates of Registration
4. Denial, Revocation, and Suspension
5. Fees
6. Enforcement

# **California Health and Safety Code**

## **Sections 13160-13190**

### **Fire Extinguishers**

#### **DETAILED ANALYSIS**

#### **Article 1. General Provisions**

<b>Section</b>		<b>Page</b>
13160.	Regulations and Standards; Administrative	5
13161.	Legislative intention	5
13162.	Requirements for sale and distribution; exceptions	5

#### **Article 2. Licensing**

13163.	License required	5
13164.	Application for license; fees; signing by applicant; authority to enter and examine premises	5
13165.	Issuance of license	6
13166.	Duration of licenses; renewals	6
13167.	Application for renewal; date; fees	6
13168.	Refusal to renew license; rights of applicant	6
13169.	Change of address	6
13170.	Advertisements; prima facie evidence of business location	6
13171.	Use of fictitious name	6
13172.	List of licensees	6
13173.	Inspection of license	6
13174.	Annual report of licensed persons servicing, charging, or testing portable fire extinguishers	6

#### **Article 3. Certificates of Registration**

13175.	Certificate required	6
13175.1	Exemptions	6
13176.	Application for certificate; fees	7
13177.	Examinations; practical tests	7
13178.	Issuance of certificate	7
13179.	Duration of certificates; renewals	7
13180.	Application for renewal; date; fees	7
13181.	Refusal to renew certificate; rights of applicant	7

### **Article 3. Certificates of Registration (Continued)**

<b>Section</b>	<b>Page</b>
13182. Change of address	7
13183. Affixing tag to serviced unit	7
13184. Inspection of certificate	7

### **Article 4. Denial, Revocation, and Suspension**

13185. Grounds for denial of issuance of license of certificate	7
13186. Request for statement of issues by applicant; effect	8
13187. Proceeding on denial of license; notice and hearing	8
13188. Grounds for suspension or revocation of license	8
13188.1. Preliminary finding of violation; suspension of license pending investigation	8
13188.2. Hearing on denial or suspension of license	8
13188.3. Procedure of hearings	8

### **Article 5. Fees**

13189. Original fee; annual renewal fee; penalty fee	8
13190. Special fee	9

### **Article 6. Enforcement**

13190.1. Powers and duties of state fire marshal; exceptions	9
13190.2. State and local regulations	9
13190.3. Maintenance of equipment installed or required by statute Or ordinance; responsibility of owners or occupants	9
13190.4. Violations; penalty; separate offenses	9

## Article 1. General Provisions

**13160. Regulations and standards; administration.** With the advice of the State Fire Advisory Board, the State Fire Marshal shall adopt, in accordance with the provisions of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, and administer regulations and standards as he or she may deem necessary for the protection and preservation of life and property to control the servicing, including charging, and testing, of all portable fire extinguishers for controlling and extinguishing fires, and for controlling the sale and marketing of all such devices with respect to conformance with standards of their use, capacity, and effectiveness. In adopting the regulations, the State Fire Marshal shall consider the standards of the National Fire Protection Association.

**13161. Legislative intention.** It is the legislative intention in enacting this chapter that the provisions of this chapter and the regulations and standards adopted by the State Fire Marshal pursuant to this chapter shall apply uniformly throughout the State of California and no county, city, city or county or district shall adopt or enforce any ordinance or rule or regulation regarding portable fire extinguishers which is inconsistent with the provisions of this chapter or the regulations and standards adopted by the State Fire Marshal pursuant to this chapter.

**13162. Requirements for sale and distribution; exceptions.** No person shall market, distribute, or sell any portable fire extinguisher in this state unless it meets the following requirements:

(a) It complies with regulations and standards adopted by the State Fire Marshal pursuant to Section 13160.

(b) It has been examined by and bears the label of Underwriters' Laboratories Inc. or another testing laboratory which is approved by the State Fire Marshal as qualified to test portable fire extinguishers. Any testing laboratory approved by the State Fire Marshal shall have facilities, personnel, and operating procedures equivalent to those of the Underwriters' Laboratories Inc. (c) It does not use as an extinguishing agent any carbon tetrachloride, chlorobromomethane, or methyl bromide.

The State Fire Marshal may grant reasonable exceptions to this subdivision when the extinguisher is intended for industrial use in places to which the public is not invited or admitted. The provisions of this section apply to the state and any political subdivision thereof.

## Article 2. Licensing

**13163. License required.** No person shall engage in the business of, nor perform for a fee, the servicing, charging, or testing of portable fire extinguishers without a license issued by the State Fire Marshal pursuant to this chapter expressly authorizing such person to perform such acts.

**13164. Application for license; fees; signing by applicant; authority to enter and examine premises.** Application for a license to engage in the business of, or perform for a fee, the servicing, charging, or testing of portable fire extinguishers shall be made in writing to the State Fire Marshal on forms provided by him and shall be accompanied by the fees prescribed in this chapter. A separate application for license shall be made for each separate place of business location of the applicant for license.

The application shall be signed by the applicant. If the application is made by a partnership, it shall be signed by each partner. If the application is made by a corporation or association other than a partnership, it shall be signed by the principal officer thereof and, in the case of applications by corporations, bear the seal of the corporation. The application shall also include written authorization by the applicant permitting the State Fire Marshal and any of his properly authorized employees to enter, examine and inspect any premises, building, room, or establishment used by the applicant in servicing,

charging, or testing portable fire extinguishers to determine compliance with the provisions of this chapter and the regulations and standards adopted by the State Fire Marshal pursuant to Section 13160.

**13165. Issuance of license.** Following receipt of the properly completed application and prescribed fees, and compliance with the provisions of this part and the regulations adopted pursuant to Section 13160, the State Fire Marshal shall issue a license.

**13166. Duration of license.** Original licenses shall be valid from the date of issuance through December 31st of the year in which issued. Thereafter, each license shall be renewed annually and renewals thereof shall be valid from January 1st through December 31st.

**13167. Application for renewal; date; fees.** Application for renewal shall be made on or before November 1st of the year in which the current license expires. Application for renewal shall be made in writing on forms provided by the State Fire Marshal and shall be accompanied by the prescribed fees.

**13168. Refusal to renew license; right of applicant.** The State Fire Marshal may refuse to renew any license in the same manner and for any reason that he is authorized pursuant to Article 4 (commencing with Section 13185) of this chapter to deny an original license. The applicant shall, upon such refusal, have the same rights as are granted by Article 4 of the chapter to an applicant for an original license which has been denied by the State Fire Marshal.

**13169. Change of address.** Every licensee shall notify the State Fire Marshal at his Sacramento office in writing within 15 days of any change of his address.

**13170. Advertisements; prima facie evidence of business location.** Any advertisement of the servicing, charging, or testing of portable fire extinguishers constitutes prima facie evidence that the premises, business, building, room, shop, store or establishment in or upon which it appears, or to which it refers, is a separate place of business location.

**13171. Use of fictitious name.** No licensee shall conduct his licensed business or solicit business under a name other than a name or names which appears on his license.

**13172. List of licensees.** The State Fire Marshal shall without cost, annually notify the chief fire official of each local fire authority of the name, address and license number of each firm that is licensed pursuant to this chapter. Upon request, single copies of such list shall be furnished, without cost, to a licensed person.

**13173. Inspection of license.** The holder of any license shall submit such license for inspection upon request of the State Fire Marshal, any of his properly authorized employees, or any local fire official.

**13174. Annual report of licensed persons servicing, charging, or testing portable fire extinguishers.** Every licensed person shall annually, within seven days of employment and within seven days of termination of employment, report to the State Fire Marshal at his Sacramento office, the name, address, and certificate of registration number, if any, of every natural person performing any act of servicing, charging, or testing portable fire extinguishers for such licensed person.

### **Article 3. Certificates of Registration**

**13175. Certificates required.** No natural person shall service, charge, or test any portable fire extinguisher without a certificate of registration issued by the State Fire Marshal pursuant to this chapter expressly authorizing such person to perform such acts.

The provisions of this article apply to the state, the Regents of University of California, a county, city, district, public authority, and any other political subdivision or public corporation in this state.

**13175.1. Exemptions.** The provisions of this article shall not apply to any person servicing, charging, or testing any portable fire extinguisher owned by such person when the portable fire extinguisher is not required by any statute, regulation, or ordinance, to be provided or installed.

The provisions of this section shall not prohibit the servicing, charging, or testing of portable fire extinguishers by new employees of a licensed person for a period not to exceed 90 days provided such servicing, charging or testing is conducted in the presence of and under the direct supervision of a natural person holding a valid certificate of registration.

**13176. Application for certificate; fees.** Application for a certificate of registration to service, charge, or test portable fire extinguishers shall be made in writing to the State Fire Marshal on forms provided by him and shall be accompanied by the fee prescribed in this chapter. The application shall be signed by the applicant.

**13177. Examinations; practical tests.** The State Fire Marshal shall require all applicants for a certificate of registration to take and pass a written examination which may be supplemented by practical tests when deemed necessary, to determine the applicants knowledge of servicing, charging and testing of portable fire extinguishers.

**13178. Issuance of certificate.** Following receipt of the properly completed application and prescribed fee, and the completion of the required examination, the State Fire Marshal shall issue a certificate of registration.

**13179. Duration of certificates; renewals.** Original certificates of registration shall be valid from the date of issuance through December 31st of the year in which issued. Thereafter, each certificate of registration shall be renewed annually and renewals thereof shall be valid from January 1<sup>st</sup> through December 31st.

**13180. Application for renewal; date; fees.** Application for renewal shall be made on or before November 1st of the year in which the current certificate of registration expires. Application for renewal shall be made in writing on forms provided by the State Fire Marshal and shall be accompanied by the prescribed fee.

**13181. Refusal to renew certificate; right of applicant.** The State Fire Marshal may refuse to renew any certificate of registration in the same manner and for any reason that he is authorized pursuant to Article 4 (commencing with Section 13185) of this chapter to deny an original certificate of registration. The applicant shall, upon such refusal, have the same rights as are granted by Article 4 of this chapter to an applicant for an original certificate of registration which has been denied by the State Fire Marshal.

**13182. Change of his address.** Every certificate of registration holder shall notify the State Fire Marshal at his Sacramento office in writing within 15 days of any change of his address.

**13183. Affixing tag to serviced unit.** Every natural person who services, charges, or tests any portable fire extinguisher shall affix a tag to the serviced unit. Such tag shall indicate the date upon which the service work was performed and it shall bear the signature of such natural person, and other information specified by the State Fire Marshal.

**13184. Inspection of certificate.** The holder of a certificate of registration shall submit such certificate for inspection upon request of the State Fire Marshal, any of his properly authorized employees, or any local fire official.

## **Article 4. Denial, Revocation, and Suspension**

**13185. Grounds for denial of issuance of license or certificate.** The issuance of a license or certificate of registration may be denied by the State Fire Marshal for any of the following reasons:

- (a) The applicant is not the real person in interest.

- (b) Material misrepresentation or false statement in the application.
- (c) Refusal to allow inspection by the State Fire Marshal or his duly authorized employees.
- (d) The applicant for a license does not have the proper or necessary facilities, including qualified personnel, to conduct the operations for which application is made.
- (e) The applicant for a certificate of registration does not possess the qualifications of skill or competence to conduct the operations for which application is made as evidenced by failure to pass the examination pursuant to Article 3 (commencing with Section 13175) of this chapter.
- (f) Refusal to take the examination required by Section 13177 of this chapter.
- (g) The applicant has been convicted of a violation of the provisions of this chapter of the regulations adopted by the State Fire Marshal pursuant to this chapter.

**13186. Request for statement of issues by applicant; effect.** Within 30 days after receipt of notice of denial sent by the State Fire Marshal by registered or certified mail to the applicant's last address of record, the applicant may file with the State Fire Marshal a request for statement of issues. Such request shall not be deemed an answer to the statement of issues, a request for a hearing, or a notice of defense. Unless the State Fire Marshal files a statement of issues regarding the denial of the application within 30 days after the timely filing of such request, the license or certificate of registration shall be issued.

**13187. Proceeding on denial of license; notice and hearing.** When a statement of issues has been so filed, the State Fire Marshal may order denial pursuant to Chapter 5 (commencing with Section 11500), Part 1, Division 3, Title 2 of the Government Code.

**13188. Grounds for suspension or revocation of license.** A license or certificate of registration may be suspended or revoked by the State Fire Marshal pursuant to Chapter 5 (commencing with Section 11500), Part 1, Division 3, Title 2, of the Government Code, for any of the following reasons:

- (a) The applicant is not the real person in interest.
- (b) Material misrepresentation or false statement in the application.
- (c) Violation of any provision of this chapter or any regulation adopted by the State Fire Marshal pursuant to this chapter.

**13188.1. Preliminary finding of violation; suspension of license pending investigation.** Preliminary finding of violation; suspension of license pending investigation. The State Fire Marshal may, upon a preliminary finding of a violation of the provisions of this part, suspend any license or certificate of registration for a period not exceeding 30 days pending investigation of any violation of the provisions of this part.

**13188.2. Hearing on denial or suspension of license.** Any applicant who has been denied a license or certificate of registration or who has had a license or certificate of registration suspended, shall be entitled to a hearing in accordance with the provisions of this part.

**13188.3. Procedure of hearings.** Except where otherwise provided in this part, all hearings under this part shall be conducted in accordance with Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

## **Article 5. Fees**

**13189. Original fee; annual renewal fee; penalty fee.**

- (a) The original and annual renewal fee for any license or a certificate of registration issued pursuant to this chapter shall be established by the State Fire Marshal. That fee shall not exceed the amount necessary to cover the costs incurred in the administration and enforcement of this chapter.



(b) A penalty fee equal to 50 percent of the required annual license fee or certificate of registration fee shall be added to the fee in all cases where the fee for a renewal is not paid on or before November 1.

**13190. Special fee.** No special fee other than that charged for an ordinary business license shall be charged for any natural person, corporation, firm, or association, by any city, county, city and county or fire protection district, for the privilege of performing acts involving servicing, charging or testing of portable fire extinguishers.

## **Article 6. Enforcement**

**13190.1. Powers and duties of the state fire marshal; exceptions.** Except as provided in this article, the State Fire Marshal shall enforce in all areas of the state, the provisions of this chapter and the regulations and standards adopted by him pursuant to Section 13160.

The provisions of this chapter and the regulations and standards adopted by the State Fire Marshal pursuant to Section 13160 shall not apply to any firm or corporation not engaged in the business of servicing, charging or testing portable fire extinguishers and that maintains its own fully equipped and specially staffed fire prevention and protection department, or to any employee of any such firm or corporation while acting in the scope of his employment.

**13190.2. State and local regulations.** Any governmental agency, including the state, and any city, county, district, or any other political subdivision or public corporation of the state, may, in their respective areas of jurisdiction, enforce ordinances, regulations, and orders adopted by such agency relating to the number, size, and type of portable fire extinguishers required to be installed or provided. Such agencies may, in their respective areas of jurisdiction, also enforce the regulations adopted by the State Fire Marshal relating to care, maintenance, and frequency of servicing, charging, and testing of portable fire extinguishers.

Nothing in this article shall diminish the enforcement responsibility and authority conferred upon any governmental agency pursuant to any other state statute.

**13190.3. Maintenance of equipment installed or required by statute or ordinance; responsibility of owners or occupants.** Any portable fire extinguisher that is required to be installed by any statute or ordinance shall be maintained in accordance with the regulations adopted pursuant to Section 13160.

(a) The owner or occupant of a property in which fire extinguishers are located shall be responsible for the inspection, maintenance, and recharging of the fire extinguishers.

(b) Maintenance, servicing, and recharging shall be performed by concerns licensed by the State Fire Marshal having available the appropriate servicing manual, the proper types of tools, recharge materials, lubricants, and manufacturer's recommended replacement parts or parts of equal quality.

**13190.4. Violation; penalty; separate offenses.** Every person who violates any provision of this chapter or any regulation adopted by the State Fire Marshal pursuant to Section 13160 is guilty of a misdemeanor punishable by a fine of not more than one thousand dollars (\$1,000), or by imprisonment for not more than six months, or by both such fine and imprisonment.

A person is guilty of a separate offense each day during which he commits, continues, or permits a violation of this chapter or of any regulation adopted pursuant to this chapter.

## **California Code of Regulations, Title 19**

### **Chapter 3. Fire Extinguishers**

#### **INDEX**

##### **Article**

1. Administration
2. Definitions
3. General Provisions
4. Classification and Ratings of Portable Fire Extinguishers
5. Selection and Distribution of Portable Fire Extinguishers
6. Inspection, Maintenance and Recharging
7. Hydrostatic Testing
8. Licensing and Certificates of Registration
9. Tagging, Marking, Labeling and Seal of Registration

## **California Code of Regulations, Title 19**

### **Chapter 3. Fire Extinguishers**

#### **DETAILED ANALYSIS**

#### **Article 1. Administration**

<b>Section</b>	<b>Page</b>
550. Authority	16
550.1. Title	16
550.2. Purpose	16
500.3. Scope	16
550.4. Notices	16
550.5. Validity	16
550.6. Approval of Laboratories	17
550.7. Standards for Fire Safety	17

#### **Article 2. Definitions**

557. Definitions	17
557.1. "A" Definitions	17
557.2. "B" Definitions	17
557.3. "C" Definitions	18
557.4. "D" Definitions	18
557.5. "E" Definitions	19
557.6. "F" Definitions	19
557.7. "G" Definitions	19
557.8. "H" Definitions	19
557.9. "I" Definitions	20
557.10. "J" Definitions	20
557.11. "K" Definitions	20
557.12. "L" Definitions	20
557.13. "M" Definitions	20
557.14. "N" Definitions	21
557.15. "O" Definitions	21
557.16. "P" Definitions	21
557.17. "Q" Definition	21
557.18. "R" Definitions	21
557.19. "S" Definitions	22
557.20. "T" Definitions	22
557.21. "U" Definitions	22

<b>Section</b>	<b>Page</b>
557.22. “V” Definitions	22
557.23. “W” Definition	23
557.24. “X” Definitions	23
557.25. “Y” Definitions	23
557.26. “Z” Definitions	23

### **Article 3. General Provisions**

560.	General Provisions and Fee Schedule	24
560.1.	Report of Violations	24
560.2.	Deceptive Practices	24
560.3.	Employer Responsibilities	25
560.4.	Recall of Extinguishers	25

### **Article 4. Classification, and Ratings of Portable Fire Extinguishers**

561.	Classification	25
561.1.	Classification and Rating System	25
561.2.	Fire Test and Performance Standards	25
562.	Classification and Rating Marking	26
563.	Operating Instructions	26
563.1.	Instruction Manual	27
564.	Metric Units	27

### **Article 5. Selection and Distribution of Portable Fire Extinguishers**

565.	Selection of Fire Extinguishers	27
565.1.	Classification of Hazards	27
565.2.	Selection by Hazard	28
566.	Application for Specific Hazards	28
567.	Distribution of Fire Extinguishers	29
567.1.	Operating Conditions	30
567.2.	Cabinets	30
567.3.	Installation	30
567.4.	Brackets	30
567.5.	Physical Damage Protection	30
567.6.	Mounting	30
567.7.	Sealed Cabinets	30
567.8.	Installation Temperatures	31

<b>Section</b>	<b>Page</b>
568. Fire Extinguisher Size and Placement for Class A Hazards	31
569. Fire Extinguisher Size and Placement for Class B Fires other than for Fires in Flammable Liquids of Appreciable Depth	32
570. Fire Extinguisher Size and Placement for Class B Fires in Flammable Liquids of Appreciable Depth Mounting	33
571. Fire Extinguisher Size and Placement for Class C Hazards	33
572. Size and Placement for Class D Hazards	33
573. Fire Extinguisher Size and Placement for Class K Hazards	34

## **Article 6. Inspection, Maintenance and Recharging**

574.1	Frequency of Inspection, General	34
574.2.	Procedures	34
574.3.	Corrective Action	34
574.4.	Rechargeable Extinguishers	34
574.5.	Nonrechargeable Extinguishers	35
574.6.	Recordkeeping	35
575.	Servicing, General	35
575.1.	Maintenance and Required Service Intervals	35
575.2.	Maintenance Requirements	36
575.3.	Maintenance Procedures	36
575.4.	Dry Chemical and Dry Powder Portable Fire Extinguishers	40
575.5.	Carbon Dioxide Extinguishers	41
575.6.	Halogenated Agent Extinguisher	41
575.7	Stored Pressure Water Type Extinguishers	41
575.8.	AFFF and FFFP Extinguishers	41
575.9.	Pump-Tank Extinguishers	42
575.10.	Out of Service	42
575.11.	Safety Pins	42
575.12.	Seal or Tamper Indicators	42
575.13.	Anti-freeze Solution	42
575.14.	Nitrogen Cylinder Operated Wheeled Extinguishers	42
575.15.	Conductivity Test	43
575.16.	Wet Chemical Fire Extinguishers	43
576.1.	Maintenance Recordkeeping	43
577.1.	Condemned Extinguishers	43
577.2.	Obsolete Fire Extinguishers	44
578.1.	Recharging, General	44
578.2.	Recharge Agents	44
578.3.	Dry Powder	44
578.4.	Replacement Pressure Gauge	44
578.5.	Precautionary Pressurization Measures	45
578.6.	Pressurizing Gas	45

<b>Section</b>	<b>Page</b>
578.7. Conversion of Extinguisher Types	45
578.8. Removal of Moisture	45
578.9. Carbon Dioxide Recharging	45
578.10. Leak Test	46
578.11. Recharging Water Types	46
578.12. Wet Chemical Agent Re-use	46

### **Article 7. Hydrostatic Testing**

591.1 Hydrostatic Testing, General	46
591.2. Corrosion	46
591.3. Written Certification	46
591.4. Restricted Service	47
591.5. Replacement Extinguishers	47
591.6. Examination of Cylinder Condition	47
591.7 Aluminum Shell/Cylinder	47
592. Frequency	47
592.1. Compressed Gas Cylinders and Cartridges	48
592.2. Hose Assemblies	48
592.3. Vehicles	48
592.4. Non-refillable Factory-sealed Disposable Containers	48
593.1. Test Pressures, High Pressure Cylinders	49
593.2 Stored Pressure Types	49
593.3. Cartridge-Operated Types	49
594.1. Test Equipment and Procedure, General	49
594.2. Test Equipment D.O.T. Specification Cylinders	49
594.3. Test Equipment for Low Pressure Non-D.O.T. Specification Cylinders	49
594.4. Testing Procedures	50
594.5. Recording of Tests	51

### **Article 8. Licensing and Certificates of Registration**

595.1. Document Transfers	52
595.2. Expired Documents	52
595.3. Minimum Ages	52
595.4. Duplicate Issuance	52
595.5. Fire Extinguisher License Types	52
595.6. Concern Name	53
595.7. Business location	54
595.8. Posting of License	54
595.9. Certificates of Registration	54
595.10. Examination Procedures	54

<b>Section</b>	<b>Page</b>
595.11. Possession of Certificate of Registration	55
595.12. Employer's Responsibility	55
595.13. Insurance	55

#### **Article 9. Tagging, Marking, Labeling and Seal of Registration**

596. General	56
596.1. Required Information	56
596.2. Size Color and Material	57
596.3. Attaching Tag	57
596.4. Format	58
596.5. Date Serviced and Signature	60
596.6. Restrictive Use	60
596.7. Removal of Tags	60
596.8. Listed Labels	60
596.9. Unlawful Use of Listed Label	60
596.10. Marking of Fire Extinguishers	61
596.11. Seal of Registration	61
596.12. Permissive Use	62
596.13. Unlawful Use	62
596.14. Cease Use Order	62

## **Title 19, Division 1, Chapter 3**

### **Article 1. Administration**

**550. Authority.** Chapter 3, Division 1 of Title 19 of the California Code of Regulations is adopted by the State Fire Marshal under the authority of Division 12, Part 2, Chapter 1.5, Section 13160, et seq., of the Health and Safety Code of the State of California.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160-13169, Health and Safety Code.

**550.1. Title.** These regulations and standards shall be known as the "Regulations and Standards of the State Fire Marshal," may be cited as such, and will be hereinafter referred to as "these regulations."

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160-13169, Health and Safety Code.

**550.2. Purpose.** The purpose of these regulations and standards is to provide means to register persons who service portable fire extinguishers; to license concerns engaging in the business of servicing portable fire extinguishers; to license private and public entities not engaged in the business and their designated employees who service their own portable fire extinguishers; and to regulate the care, maintenance, placement, frequency of servicing, charging and testing of portable fire extinguishers.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13163, and 13175, Health and Safety Code.

**550.3. Scope.** These regulations apply to the sale and servicing of all portable fire extinguishers as outlined in Sections 13160, 13162, 13175, 13183, 13190.1, 13190.2 13190.3, Health and Safety Code.

EXCEPTIONS: These regulations do not apply to nor control the servicing of:

- (a) Permanently installed automatic fire extinguishing systems or portions thereof;
- (b) Owner serviced portable fire extinguishers as provided in Section 13175.1, Health and Safety Code, and;
- (c) Portable fire extinguishers owned and serviced by the Federal Government.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13161, 13162, 13163, 13165, 13183, 13190, 13190.2, 13190.3, Health and Safety Code.

**550.4. Notices.** Any notice by the State Fire Marshal and required by any provisions of the statutes or of these regulations, may be given by certified or registered mail, postage prepaid, addressed to the person to be notified, at his last known address of residence or business as it appears on the records in the Office of the State Fire Marshal.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160-13169, Health and Safety Code.

**550.5. Validity.**

(a) If any article, section, subsection, sentence, clause, or phrase of these regulations is for any reason held to be unconstitutional, contrary to statute or exceeding the authority of the State Fire Marshal, such decision shall not affect the validity of the remaining portion of these regulations.



(b) If any article, section, subsection, sentence, clause or phrase of these regulations is for any reason held to be inoperative as it applied to any person or circumstance, such decision shall not affect its validity as it applies to any other person or circumstance.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160-13169, Health and Safety Code.

#### **550.6. Approval of Laboratories.**

(a) Any laboratory desiring approval by the State Fire Marshal to perform testing and labeling of portable fire extinguishers shall submit proof of the following:

- (1) The Laboratory possesses proper equipment necessary to perform tests according to the ANSI/UL standards listed in Section 561.2.
- (2) Evidence of qualified personnel, meaning the employment of not less than one person who holds a degree in engineering or is registered as a Professional Engineer, and having not less than two years actual experience testing portable fire extinguishers in accordance with ANSI/UL Test standards in Section 561.2.

(b) Laboratory personnel performing tests and not meeting the above requirements may perform such tests only under the direct supervision of a qualified person.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13162, Health and Safety Code.

**550.7 Standards for Fire Safety.** The phrase "Standards for Fire Safety" means compliance with Standards listed in Section 561.2(a).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13161, 13162, 13190.1, 13190.3, Health and Safety Code.

### **Article 2. Definitions**

**557. Definitions.** For the purpose of this Chapter, the meaning of the following terms, shall be as set forth in this article.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160-13190.4, Health and Safety Code.

#### **557.1 "A" Definitions.**

- (a) AFF. Aqueous Film Forming Foam.
- (b) ANSI . American National Standards Institute, Inc.
- (c) Approved. Refers to approval by the State Fire Marshal as a result of investigations or tests conducted or supervised by him, or by reason of tests by recognized testing laboratories, national authorities, technical or scientific organizations.
- (d) Annual Maintenance. The type of fire extinguisher maintenance that is required to be preformed annually, pursuant to Section 575.1. For annual maintenance, the year shall start on the first day maintenance is performed and end one calendar year later.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13166, 13172, 13174, 13179, 13189, Health and Safety Code.

#### **557.2 "B" Definitions.** None.

### **557.3 "C" Definitions.**

(a) Capacity. The amount of extinguishing agent contained in any portable fire extinguisher as measured in U.S. gallons, pounds or S.I. units (See Section 557.19).

(b) Cartridge operated fire extinguishers. Extinguishers in which expellant gas is stored in a separate cartridge or in a gas cylinder located within or adjacent to the shell containing the extinguishing agent. These extinguishers are actuated by releasing the cartridge gas which expels the agent.

(c) Certificate of Registration. A document issued by the State Fire Marshal to any qualified person authorizing that person to perform any specific act.

(d) Charge. Any substance or compound of substances used as an extinguishing agent, or as an expellant force for an extinguishing agent.

(e) Charging. The act of placing any "charge" within any portable fire extinguisher.

(f) Chemical. Any substance or compound of substances used as an extinguishing agent or as an expellant force for an extinguishing agent.

(g) Classes of fire:

(1) CLASS A. Fires in ordinary combustible materials such as wood, cloth, paper, rubber, and many plastics.

(2) CLASS B. Fires in flammable or combustible liquids, such as oils, greases, tars, oil base paints, lacquers, and flammable gases.

(3) CLASS C. Fires involving energized electrical equipment when electrical non-conductivity of the extinguishing media is of importance.

(4) CLASS D. Fires in combustible metals, such as magnesium, titanium, sodium, lithium, and potassium.

(5) CLASS K. Fires in cooking appliances that involve combustible cooking media (vegetable or animal oils and fats).

(h) Compressed Gas Cylinders. Compressed gas cylinders and cartridges are those containing any material or mixture having an absolute pressure exceeding 40 p.s.i. at 70 degrees Fahrenheit.

(i) Cylinder, D.O.T.. Compressed gas cylinders and cartridges manufactured to D.O.T. standards which are either:

(1) High pressure - Service pressure of 501 p.s.i.g. or higher at 70 degrees Fahrenheit and all cylinders containing carbon dioxide, and

(2) Low pressure - Service pressure of 500 p.s.i.g. at 70 degrees Fahrenheit or lower.

(j) Cylinder, Non-D.O.T.. Low pressure containers typically used for cylinder operated dry cylinder operated chemical, and pressurized water-based type extinguishers.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13163-13164, 13174-13182, 13184-13186, 13188-13189, Health and Safety Code.

### **557.4 "D" Definitions.**

(a) D.O.T.. United States Department of Transportation, which has jurisdiction over compressed gas cylinders and cartridges.

(b) Dry Chemical Closed Recovery System. A system that provides for the transfer of dry chemical agent between extinguishers and recovery containers that is closed to prevent the loss of agent to the atmosphere.

(c) Dry Powder. Solid materials in powder or granular form designed to extinguish Class D combustible metal fires by crusting, smothering, or heat transferring means.

(d) Dry Chemical. Various mixtures of finely divided solid particles additionally supplemented with special treatments to provide resistance to packing, moisture absorption (caking), and proper flow characteristics. These agents are designed for extinguishment of Class "A" and "B" fires. They are nonconductors and approved for use on energized Class C fire situations.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, Health and Safety Code.

**557.5. "E" Definitions.**

- (a) "E" Number. Fire Extinguisher Concern License Number designated by the Office of the State Fire Marshal.
- (b) "EE" Number. Certification of Registration Number designated by the Office of the State Fire Marshal to individuals qualified to perform specific acts of servicing fire extinguishers.
- (c) Effectiveness. Having the ability to produce the desired extinguishing potential.
- (d) Employee. Those persons who work directly for a licensed concern in the business of servicing portable fire extinguishers for a fee or are employed by and work directly for a public or private company not engaged in the business who service their own portable fire extinguishers
- (e) Empty. To completely remove all contents from a portable fire extinguisher except the expellant cartridge.
- (f) Extinguisher. See Section 557.16(c), Portable Fire Extinguisher.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160-13164, 13170, 13174-13177, 13183, 13189, 13190.1, 13190.3, Health and Safety Code.

**557.6. "F" Definitions.**

- (a) Factory Test Pressure. The pressure at which the shell was tested at time of manufacture. This pressure is shown on the nameplate.
- (b) FFFP. Film Forming Fluoroprotein Foam.
- (c) F.M.. Factory Mutual.
- (d) Fire Department. For the purposes of these regulations, a department of state, county, districts, or municipal government, a separate tax-supported unit of government organized under special provisions of law or a privately organized unit located within an industrial facility providing fire protection service to the community or facility to prevent fires from starting, prevent loss of life and property when fire starts, confine fire to the place where it starts, and to extinguish fires.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections, 13160-13165, 13167-13169, 13172-13175, 13176-13178, 13180-13190.2, 13190.4, Health and Safety Code.

**557.7. "G" Definitions.**

- (a) Gallon. U.S. Standard gallon. or S.I. Units (See Section 557.19).
- (b) Gauge. U.S. Standard gauge. or S.I. Units (See Section 557.19).
- (c) Give Giving, offering to give or advertising the intent to give.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections, 13160, 13162, Health and Safety Code.

**557.8. "H" Definitions.**

- (a) Halogenated Agents. Halogenated (clean) agents referenced in these regulations are of the following types:

- (1) Halons. Halons include Bromochlorodifluoromethane (Halon 1211), bromotrifluoromethane (Halon 1301), and mixtures of Halon 1211 and Halon 1301 (Halon 1211/1301).
- (2) Halocarbons. Halocarbon agents include hydrochlorofluorocarbon (HCFC), hydrofluorocarbon (HFC), perfluorocarbon (PFC), and fluoroiodocarbon (FIC) types of agents.

(b) Halon Closed Recovery System. A system that provides for the transfer of halon between extinguishers, supply containers, and recharge and recovery containers in compliance with U.L. Standard 2006.

(c) Hydrostatic Test. Any pressure test procedure specified in this chapter.

(d) High Pressure Cylinder. High pressure cylinders and cartridges are those containing nitrogen or compressed air at service pressure higher than 500 p.s.i.g. at 70 degrees Fahrenheit, or carbon dioxide.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, Health and Safety Code.

#### **557.9. "I" Definitions.**

(a) Inspection. A "quick check" that a fire extinguisher is available and will operate. It is intended to give reasonable assurance that the fire extinguisher is fully charged and operable. This is done by verifying that the fire extinguisher is in its designated place, that it has not been actuated or tampered with, and that there is no obvious or physical damage or condition to prevent its operation.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13164, 13173, Health and Safety Code.

#### **557.10. "J" Definitions.** None.

#### **557.11. "K" Definitions.** None

#### **557.12. "L" Definitions.**

(a) License. A document issued by the State Fire Marshal authorizing a concern at a fixed location to engage in the business of servicing fire extinguishers, or a public or private entity not engaged in the business of servicing fire extinguishers, to perform specific acts of servicing portable fire extinguishers (as specified in section 595.5).

(b) Licensee. A specific concern or a public or private entity to which a license has been issued by the State Fire Marshal.

(c) Listed. Equipment or materials included in a list published by a State Fire Marshal approved laboratory having a third party certification program for portable fire extinguishers which meets or exceeds ANSI/UL 1803, Standard for Factory Follow-up on Third Party Certified Portable Fire Extinguishers, 1st Edition, as determined by the State Fire Marshal.

(d) Listed Label. A tag, plate or band with legible information or symbols in accordance with the standards of Section 561.2 attached to a fire extinguisher cylinder, shell or shroud by the manufacturer.

(e) Loaded Stream Charge. A water-based extinguishing medium that uses an alkali metal salt as a freezing point depressant.

(f) Low Pressure Cylinder. Low pressure cylinders are those containing fire-extinguishing agent (medium), nitrogen, compressed air, or other compressed gases at a service pressure of 500 psi (3447 kPa) or lower at 70 degrees Fahrenheit (21°C).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13163-13169, 13171-13174, 13185, 13188-13190, Health and Safety Code.

#### **557.13. "M" Definitions.**

(a) Maintenance. A thorough examination of the fire extinguisher done in accordance with the manufacturer's written instructions and the requirements of this chapter. It is intended to give maximum

assurance that a fire extinguisher will operate effectively and safely. Maintenance includes a thorough examination and any necessary repair or replacement. Maintenance will normally reveal if hydrostatic testing or internal maintenance is required.

(b) Marketing. The act of selling. (See Section 557.19.(a))

(c) Mild Steel Shell. Except for stainless steel and steel used for high pressure cylinders, all other steel shells are defined as "mild steel" shells.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, Health and Safety Code.

**557.14. "N" Definitions.**

(a) N.F.P.A. - The National Fire Protection Association.

(b) Nonrechargeable Fire Extinguisher. A nonrechargeable (nonrefillable) fire extinguisher is not capable of (nor intended to be capable of) undergoing complete maintenance, hydrostatic testing, and being restored to its full operating capability by the standard practices used by fire equipment dealers and distributors. Some fire extinguishers that are physically rechargeable are marked nonrechargeable and are therefore considered for purpose of this regulation to be nonrechargeable (nonrefillable) fire extinguishers.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**557.15. "O" Definitions.** None.

**557.16. "P" Definitions.**

(a) Part. Any component of a portable fire extinguisher except the extinguishing agent and charge.

(b) Part (Approved). Parts used in the maintenance and servicing of portable fire extinguishers shall be the manufacturer's recommended replacement parts or parts of equal quality. Part, as used in this Chapter, does not include the extinguishing agent itself or the expellant in an extinguisher.

(c) Portable Fire Extinguisher. A manually actuated portable device carried, or mounted on wheels and operated by hand and which contains a fire extinguishing agent that can be expelled under any type of pressure for the purpose of suppressing or extinguishing fire.

(d) Pressurized Extinguisher. A portable fire extinguisher which maintains the expellant force and the extinguishing agent within the same or common cylinder.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160-13164, 13170, 13174-13177, 13183, 13190.1-13190.3, Health and Safety Code.

**557.17. "Q" Definitions.** None.

**557.18. "R" Definitions.**

(a) Rating. A numerical-alphabetical designation of a portable fire extinguisher which indicates the extinguishing potential (the number) and the class of fire (the letter) for which the extinguisher is suitable.

(b) Recognized Testing Laboratory. For the purpose of this article, a recognized testing laboratory shall mean any agency staffed by qualified personnel and properly equipped to conduct the particular test in question, and who are regularly engaged in conducting tests. Laboratories other than those specified in Section 13162(b) of the Health and Safety Code, shall be approved by the State Fire Marshal.

(c) Rechargeable (Refillable) Fire Extinguisher. A rechargeable (refillable) fire extinguisher is capable of undergoing complete maintenance, including internal inspection of the pressure vessel, replacement of all sub-standard parts and seals, and hydrostatic testing. The fire extinguisher is capable of being recharged with agent and restored to its full operating capability by the standard practices used by licensed concerns. Rechargeable (refillable) fire extinguishers shall be marked "Recharge Immediately After Any Use" or with a similar equivalent marking.

(d) Recharging. The replacement of the extinguishing agent, also including the expellant for certain types of extinguishers.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13162, 13189, Health and Safety Code.

#### **557.19. "S" Definitions.**

(a) Sell. Offer or expose for sale, barter, trade, deliver, give away, rent, consign, lease, market, distribute or possess with the intent to sell.

(b) Servicing. Includes one or more of the following:

(1) maintenance;

(2) recharging;

(3) hydrostatic testing.

(c) Service Pressure. The normal operating pressures as indicated on the gauge or nameplate.

(d) Signature. The written signature of a person as it appears on the Application for Certificate of Registration. A rubber stamp of name or signature is not acceptable.

(e) S.I. Units. Metric units of measure in accordance with the International System of Units.

(f) Shall. Indicates a mandatory requirement.

(g) Should. Indicates a recommendation or that which is advised but not required.

(h) Stored Pressure Fire Extinguisher. A fire extinguisher in which both the extinguishing material and expellant gas are kept in a single container and that includes a pressure indicator or gauge.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, Health and Safety Code.

#### **557.20. "T" Definitions.**

(a) Travel Distance. The actual walking distance from any point to the nearest fire extinguisher fulfilling "fire extinguisher hazard requirements".

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13162, Health and Safety Code.

#### **557.21. "U" Definitions.**

(a) U.L. Underwriters' Laboratories, Incorporated.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13162, Health and Safety Code.

#### **557.22. "V" Definitions.**

(a) Valid. Means a license or Certificate of Registration which has not been suspended, denied, or revoked and for which all appropriate fees have been tendered for the period involved.

(b) Vaporizing liquid. A class of extinguishing agents possessing toxic properties which are prohibited for use in California. (Section 13162(c), Health and Safety Code). These agents are Carbon

Tetrachloride (CCl<sub>4</sub>), Methyl Bromide (CH<sub>3</sub>Br), Chlorobromomethane (CH<sub>2</sub>ClBr), and Dibromo Tetrafluoroethane (C<sub>2</sub>Br<sub>2</sub>F<sub>4</sub>).

(c) Vehicle. For the purposes of this Chapter, as defined in Vehicle Code Section 670 and includes vessels as defined in Harbors and Navigation Code Section 651, and aircraft as defined in Public Utilities Code Section 21012.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, Health and Safety Code.

**557.23. "W" Definitions.**

(a) Water-Type Fire Extinguisher. A water-type fire extinguisher contains water-based agents, such as water, AFFF, FFFP, antifreeze, and loaded stream.

(b) Wet Chemical. Wet chemicals include, but are not limited to, aqueous solutions of potassium acetate, potassium carbonate, potassium citrate, or combinations of these materials.

(c) Wheeled Fire Extinguisher. For the purposes of this subchapter, wheeled fire extinguishers are considered portable fire extinguishers as defined in Section 557.16(c).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**557.24. "X" Definitions.** None.

**557.25. "Y" Definitions.** None.

**557.26. "Z" Definitions.** None.

## Article 3. General Provisions

### 560. General Provisions and Fee Schedule

(a) No person shall engage in the servicing and maintenance of portable fire extinguishers under the scope of this chapter (Section 550.3) without having first submitted an application and all documents, necessary to demonstrate compliance with and having obtained a license from, the State Fire Marshal in accordance with the provisions of this chapter. Licenses shall be processed in accordance with Title 19, California Code of Regulations, Section 3.33.

(b) Every fire extinguisher concern license or certificate of registration fee required in accordance with the provisions of Section 13189 of the Health and Safety code shall be paid in legal tender, or by money order or postal note, or valid personal check made payable to the "State Fire Marshal". Fee shall accompany each application for license or certificate of registration.

(c) Every fee shall be paid at or mailed to, the Sacramento Headquarters Office of the State Fire Marshal.

(d) The original and annual renewal fee for any license or a certificate of registration issued pursuant to this chapter shall be as follows:

(1) Certificate of Registration..... \$55

(2) A fire extinguisher Concern license for firms engaged in the business of performing for a fee specific acts of servicing portable fire extinguishers pursuant to 595.5..... \$625

(4) A "L" (Limited) fire extinguisher servicing license for public or private entities not engaged in the business, nor performing for a fee, specific acts pursuant to Section 595.5 (a)(7) of servicing their own portable fire extinguishers..... \$125

(e) Application for renewal of a license or for a certificate of registration which has expired for one year shall be considered as an original application.

(f) Application for change of location or any license revision requiring a physical inspection by a State Fire Marshal designee of a licensed concern.....\$125

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**560.1. Report of Violations.** Any action taken by a local entity against licensed concerns or Certificate of Registration holders shall be reported to the State Fire Marshal within 15 days of the action. The State Fire Marshal shall respond to the reporting agency within 60 days.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

### 560.2. Deceptive Practices.

(a) Any licensee, or employee thereof, who engages in unfair methods of competition or makes false or misleading statements as prohibited in Sections 17200 and 17500 of the Business and Professions Code shall be subject to license denial, revocation or suspension.

(b) Any licensee, or employee thereof, upon making contact with the prospective buyer (business owner or owner's representative) shall:

- (1) state the identity of the person making the solicitation
- (2) state the name of the business being represented
- (3) state the type of goods or services being offered for sale
- (4) show or display personal identification from the fire extinguisher concern affiliated with.



(5) show current Certificate of Registration Card prior to performing fire extinguisher servicing.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13170, 13171, 13183, 13185, 13188, Health and Safety Code.

**560.3. Employer Responsibility.** Every licensed concern is responsible for the acts of employees (see definition of “Employee” Section 557.5(d) in the marketing, sale, distribution, and servicing of any portable fire extinguisher.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13165, Health and Safety Code.

**560.4. Recall of Extinguishers.** When a manufacturer deems it necessary to recall an extinguisher model or series, the manufacturer shall notify the State Fire Marshal. Such notification shall include the reasons for the recall and procedures for replacement and the disposition of recalled extinguishers.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code.

#### **Article 4. Classification, and Ratings of Portable Fire Extinguishers**

##### **561. Classification.**

(a) Portable fire extinguishers are classified for use on certain classes of fire and rated for relative extinguishing effectiveness at a temperature of plus 70°F (21.1°C) by testing laboratories. This is based upon classification of the fire pursuant to Section 561.1 and the fire extinguishment potentials as determined by fire tests.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

##### **561.1. Classification and Rating System.**

(a) The classification and rating system described in these regulations is that of ANSI/UL Standard 711, and is based on extinguishing preplanned fires of the determined size and description as follows:

- (1) CLASS A RATING. Wood and excelsior.
- (2) CLASS B RATING. Two-inch (5.1-cm) depth n-heptane fires in square pans.
- (3) CLASS C RATING. No fire test. Agent must be a nonconductor of electricity.
- (4) CLASS D RATING. Special tests on specific combustible metal fires.
- (5) CLASS K RATING. Special tests on cooking appliances using combustible cooking media (vegetable or animal oils and fats).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

##### **561.2. Fire Test and Performance Standards.**

(a) Portable fire extinguishers used to comply with this regulation shall be listed and labeled and meet or exceed all of the requirements of the fire test standards and one of the appropriate performance standards shown below:

- (1) Fire Test Standards: ANSI/UL 711, Standard for Fire Extinguishers, Rating and Fire Testing 5<sup>th</sup> Edition, 1995.

(2) Performance Standards:

(A) CO2 Types: ANSI/UL 154, Standard for Carbon Dioxide Fire Extinguishers, 8<sup>th</sup> Edition, 1995.

(B) Dry Chemical Types: ANSI/UL 299, Standard for Dry Chemical Fire Extinguishers, 9<sup>th</sup> Edition, 1995.

(C) Water Types: ANSI/UL 626, Standard for Two and One-Half Gallon Stored-Pressure, Water-Type Fire Extinguishers, 9<sup>th</sup> Edition, 1995.

(D) Halon Types: ANSI/UL 1093, Standard for Halogenated Agent Fire Extinguishers, 5<sup>th</sup> Edition, 1995.

(E) Foam Types: ANSI/UL 8, Standard for Foam Fire Extinguishers, 5<sup>th</sup> Edition, 1995.

(b) The identification of the listing and labeling organization, the fire test and performance standard which the extinguisher meets or exceeds shall be clearly marked on each extinguisher.

EXCEPTION: Extinguishers manufactured prior to January 1, 1986.

(c) An organization listing, labeling and marking extinguishers used to comply with the requirements of this chapter shall utilize a third party certification program for portable fire extinguishers which meets or exceeds ANSI/UL 1083.

EXCEPTION: Extinguishers manufactured prior to January 1, 1986.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**562. Classification and Rating Marking.** The classification of extinguishers shall consist of a LETTER which indicates the class of fire on which an extinguisher has been found to be effective, preceded by a rating NUMBER (Class A and B only) which indicates the relative extinguishing effectiveness.

EXCEPTION: Extinguishers classified for use on Class C, Class D, or Class K hazards shall not be required to have a number preceding the classification letter.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**563. Operating Instructions.**

(a) Extinguisher operating instructions shall be located on the front of the extinguisher and be clearly visible. Other labels and markings shall not be located or placed on the front of the extinguisher.

EXCEPTION: Original manufacturer's labels, labels that specifically relate to the extinguisher's operation or fire classification, or inventory control labels specific to that extinguisher. These labels shall not contain any company advertising.

(b) Extinguishers mounted in cabinets or wall recesses shall be placed in a manner such that the extinguisher operating instructions face outward. The location of such extinguishers shall be marked conspicuously.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**563.1. Instruction Manual.** An extinguisher instruction manual shall be provided to the owner or the owner's agent giving condensed instructions and cautions necessary to its installation, operation, inspection and maintenance. This manual shall be provided upon the sale or transfer of the extinguisher. The manual may be specific to the extinguisher involved or it may cover many types.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**564. Metric Units.** Metric units of measurement in this standard are in accordance with the modernized metric system known as the International System of Units (SI). One unit (liter), outside of but recognized by SI, is commonly used in international fire protection. The units are listed in Table 1 with conversion factors.

**TABLE 1**

<u>Name of Unit</u>	<u>Unit Symbol</u>	<u>Conversion Factor</u>
liter	L	1 gal = 3.785 L
Centimeter	Cm	1 in. = 2.540 cm
meter	M	1 ft. = 0.305 m
Kilogram	kg	1 pound (mass) = 0.454 kg
Degree Celsius	°C	5/9(°F-32) = °C
Bar	bar	1 psi = 0.0689 bar

For additional conversions and information see ASTM E380, Standard for Metric Practice.

If a value for measurement as given in this standard is followed by an equivalent value in other units, the first stated is to be regarded as the requirement. A given equivalent value may be approximate.

The conversion procedure for the SI units has been to multiply the quantity by the conversion factor and then round the result to the appropriate number of significant digits.

NOTE: Authority cited: Section 13161, Health and Safety Code. Reference cited: Section 13161, Health and Safety Code.

## **Article 5. Selection and Distribution of Portable Fire Extinguishers**

### **565. Selection of Fire Extinguishers.**

(a) The selection of extinguishers for a given situation shall be determined by the authority having jurisdiction in accordance with adopted codes or ordinances. The character of the fires anticipated, the construction and occupancy of the individual property, the vehicle or hazard to be protected, ambient-temperature conditions, and other factors shall be considered. The number, size, placement, and limitations of use of extinguishers required shall be determined by using Sections 567 through 573.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

#### **565.1 Classification of Hazards.**

(a) Light (low) Hazard. Locations where the total amounts of Class A combustible materials, including furnishings, decorations and contents, is of minor quantity. These shall include buildings or rooms occupied as offices, classrooms, churches, assembly halls, etc. This classification anticipates that

the majority of contents are either noncombustible or so arranged that a fire is not likely to spread rapidly. Small amounts of Class B flammables used for duplicating machines, art departments, etc., are included provided that they are kept in closed containers and safely stored.

(b) Ordinary (Moderate) Hazard. Locations where the total amounts of Class combustibles and Class B flammables are present in greater amounts than expected under Light (Low) Hazard occupancies. These occupancies could consist of offices, classrooms, mercantile shops and allied storage, light manufacturing, research operations, auto showrooms, parking garages, workshop or support service areas of Light (Low) Hazard occupancies, and warehouses containing Class I or Class II commodities.

(c) Extra (High) Hazard. Locations where the total amount of Class A combustibles and Class B flammables are present, in storage, production use, and/or finished product over and above those expected and classed as ordinary (moderate) hazards. These occupancies could consist of woodworking, vehicle repair, aircraft and boat servicing, individual product display showrooms, product convention center displays, storage and manufacturing processes such as painting, dipping, coating, including flammable liquid handling. Also included is warehousing of, or in-process storage of other Class I and Class II commodities.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

#### **565.2. Selection by Hazard.**

(a) Extinguishers shall be selected for the specific class or classes of hazards to be protected in accordance with the following subdivisions.

(b) Extinguishers for protecting Class A hazards shall be selected from the following: Water-type, halogenated agent types, multipurpose dry chemical and wet chemical type.

(c) Extinguishers for protection of Class B hazards shall be selected from the following: carbon dioxide, dry chemical types, halogenated agent types, and water-type and water chemical extinguishers rated for Class B hazards.

(d) Extinguishers for protection of Class C hazards shall be selected from the following: carbon dioxide, dry chemical types, halogenated agent types, and water mist types rated for Class C. Carbon dioxide extinguishers equipped with metal horns are not considered safe for use on fires in energized electrical equipment and, therefore, are not classified for use on Class C hazards.

(e) Extinguishers and extinguishing agents for the protection of Class D hazards shall be of types approved for use on the specific combustible-metal hazard.

(f) Fire extinguishers and extinguishing agents for the protection of Class K hazards shall be selected from either a wet chemical type or dry chemical type.

#### **566. Application for Specific Hazards.**

(a) Class B Fire Extinguishers for Pressurized Flammable Liquids and Pressurized Gas Fires. Fires of this nature are considered to be a special hazard. Class B fire extinguishers containing agents other than dry chemical are relatively ineffective on this type of hazard due to stream and agent characteristics. Selection of extinguishers for this type of hazard shall be made on the basis of recommendations by manufacturers of this specialized equipment. The system used to rate extinguishers on Class B fires (flammable liquids in depth) is not applicable to these types of hazards.

It has been determined that special nozzle design and rates of agent application are required to cope with such hazards. Caution: It is undesirable to attempt to extinguish this type of fire unless there is reasonable assurance that the source of fuel can be promptly shut off.

(b) Fire extinguishers provided for the protection of cooking appliances that use combustible cooking media (vegetable or animal oils and fats) shall be listed and labeled for Class K fires.

EXCEPTION: Fire extinguishers installed specifically for hazards in this section prior to January 1, 2002.

(c) Three-dimensional Class B Fires. A three-dimensional Class B fire involves Class B materials in motion such as pouring, running or dripping flammable liquids and generally includes vertical as well as one or more horizontal surfaces. Fires of this nature are considered to be a special hazard. Selection of extinguishers for this type of hazard shall be made on the basis of recommendations by manufacturers of this specialized equipment. The system used to rate extinguishers on Class B fires (flammable liquid in depth) is not directly applicable to this type of hazard.

(d) Water Soluble Flammable Liquid Fires (Polar Solvents). Extinguishers used for the protection of water soluble flammable liquids, such as alcohols, acetones, esters, ketones, etc., shall be selected in accordance with Section 565.2. AFFF type and FFFP type fire extinguishers shall not be used for the protection of water soluble flammable liquids, such as alcohols, acetone, esters, ketones, etc., unless specifically referenced on the extinguisher nameplate.

(e) Electronic Equipment Fires. Extinguishers for the protection of delicate electronic equipment shall be selected from the following: carbon dioxide type or a halogenated agent type, or a distilled water mist type with a minimum Class A: C Rating.

(f) In patient care areas and sleeping rooms of health care facilities, fire extinguishers, including the agents and expelling means, should be selected and utilized which would not be detrimental to patients and are appropriate for the type of fire expected, such as distilled water mist type fire extinguishers with a minimum "2-A: C" Rating.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

#### **567. Distribution of Fire Extinguishers.**

(a) The minimum number of fire extinguishers needed to protect a property shall be determined as outlined in this section. Additional extinguishers may be installed to provide more suitable protection.

(b) Fire extinguishers shall be provided for the protection of both the building structure and the occupancy hazards contained therein.

(c) Required building protection shall be provided by fire extinguishers suitable for Class A fires.

(d) Occupancy hazard protection shall be provided by fire extinguishers suitable for such Class A, B, C, D, or K fire potentials as may be present.

(e) Extinguishers provided for building protection may be considered also for the protection of occupancies having a Class A fire potential.

(f) Buildings having an occupancy hazard subject to class B and/or Class C fires shall have a standard complement of Class A fire extinguishers for building protection, plus additional Class B and/or Class C extinguishers. Where fire extinguishers have more than one letter classification (such as 2A:20-B:C), they may be considered to satisfy the requirements of each letter class. When using multi-purpose extinguishers for the protection of Class B hazards, the maximum travel distances described in Table 3 must be observed.

(g) Rooms or areas shall be classified generally as light (low) hazard, ordinary (moderate) hazard or extra (high) hazard. Limited areas of greater or lesser hazards shall be protected as required.

(h) On each floor level, the area protected and the travel distances shall be based on fire extinguishers installed in accordance with Tables 2 and 3.

(i) Fire extinguishers shall not be obstructed or obscured from view.

EXCEPTION: In large rooms, and in certain locations where visual obstruction cannot be completely avoided, means shall be provided to indicate the fire extinguisher's location.

(j) Fire extinguishers shall be conspicuously located along normal paths of travel where they will be readily accessible and immediately available in the event of a fire.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.1 Operating Conditions.** Portable extinguishers shall be maintained in a fully charged and operable condition, and kept in their designated places at all times when they are not being used.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.2. Cabinets.** Cabinets housing extinguishers shall not be locked.

EXCEPTION: Where extinguishers are subject to malicious use, locked cabinets may be used provided they include a means of emergency access and are approved by the authority having jurisdiction.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.3. Installation.** Portable fire extinguishers other than wheeled types shall be securely installed on the hanger or in the bracket supplied or placed in cabinets or wall recesses. The hanger or bracket shall be securely and properly anchored to the mounting surface in accordance with the manufacturer's instructions. Wheeled-type fire extinguishers shall be located in a designated location.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.4. Brackets.** Extinguishers installed under conditions where they are subject to dislodgment shall be installed in brackets specifically designed to cope with this problem.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.5. Physical Damage Protection.** Extinguishers installed under conditions where they are subject to physical damage, (e.g., from impact, vibration, the environment) shall be adequately protected.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.6. Mounting.** Fire extinguishers having a gross weight not exceeding 40 lbs (18.14kg) shall be installed so that the top of the fire extinguisher is not more than 5 ft. (1.53m) above the floor. Fire extinguishers having a gross weight greater than 40 lbs. (18.14kg) (except wheeled types) shall be so installed that the top of the fire extinguisher is not more than 3-1/2 ft. (1.07 m) above the floor. In no case shall the clearance between the bottom of the extinguisher and the floor be less than 4 in. (10.2 cm).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.7. Sealed Cabinets.** Where extinguishers are installed in closed cabinets, which are exposed to elevated temperatures, the cabinets shall be provided with screened openings and drains.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**567.8. Installation Temperatures.** Water-type (water, AFFF, FFFP) extinguishers shall not be installed in areas where temperatures are outside the range of 40°F to 120°F (4°C to 49°C). Other types shall not be installed in areas where temperatures are outside the range of -40°F to 120°F (-40°C to 49°C). Fire extinguishers shall not be exposed to temperatures outside of the range shown on the fire extinguisher label.

EXCEPTION No. 1: Where fire extinguishers are installed in locations subject to temperatures outside these ranges, they shall be of a type approved and listed for the temperature to which they are exposed, or they shall be placed in an enclosure capable of maintaining the stipulated temperature range.

EXCEPTION No. 2: Fire extinguishers containing plain water only can be protected to temperatures as low as -40°F (-40°C) by the addition of an antifreeze stipulated on the extinguisher nameplate. Calcium chloride solutions shall not be used in stainless steel fire extinguishers.

EXCEPTION No. 3: Some fire extinguishers are approved or listed for use at temperatures as low as -65°F (-54°C).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**568. Fire Extinguisher Size and Placement for Class A Hazards.**

(a) Minimum sizes of fire extinguishers for the listed grades of hazards shall be provided on the basis of Table 2, except as modified by Section 568 (d). Extinguishers shall be located so that the maximum travel distances shall not exceed those specified in Table 2, except as modified by Section 568 (d).

(b) Certain smaller fire extinguishers which are charged with a multipurpose dry chemical or halogenated agent are rated on Class B and Class C fires, but have insufficient effectiveness to earn the minimum 1-A rating even though they have value in extinguishing smaller Class A fires. They shall not be used to meet the requirements of Table 3.

**TABLE 2**

	Light (low) Hazard <u>Occupancy</u>	Ordinary (Moderate) Hazard <u>Occupancy</u>	Extra (High) Hazard <u>Occupancy</u>
Minimum rated single extinguisher	2-A	2-A	4-A*
Maximum floor area per unit of A	3,000 sq ft	1,500 sq ft	1,000 sq ft
Maximum floor area for extinguisher	11,250 sq ft	11,250 sq ft	11,250 sq ft
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

\*Two 2 1/2 gal (9.46 L) water type extinguishers can be used to fulfill the requirements of one 4-A rated extinguisher.

NOTE: 1 ft. = 0.305 m  
1 sq ft = 0.0929 m<sup>2</sup>

(c) Extinguishers as specified in Table 2 may be replaced by uniformly spaced 1 1/2 inch (3.810 cm) hose stations for use by the occupants of the building. When hose stations are so provided they shall conform to Title 24, California Code of Regulations, Chapter 2-38. The location of hose stations and the placement of fire extinguishers shall be in such a manner that the hose stations do not replace more than every other extinguisher.

(d) Where the floor area of a building is less than that specified in Table 2, at least one extinguisher of the minimum size recommended shall be provided.

(e) The protection requirements may be fulfilled with extinguishers of a higher rating provided the travel distance from anywhere in the building to such larger extinguishers shall not exceed 75 ft (22.7m), as shown in Table 2 above.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**569. Fire Extinguisher Size and Placement for Class B Fires other than for Fires in Flammable Liquids of Appreciable Depth.**

(a) Minimal sizes of fire extinguishers for the listed grades of hazard shall be provided on the basis of Table 3. Extinguishers shall be located so that the maximum travel distances from anywhere in the building shall not exceed those specified in the table used.

EXCEPTION: Extinguishers of lesser rating, desired for small specific hazards within the general hazard area, may be used, but shall not be considered as fulfilling any part of the requirements of Table 3.

**TABLE 3**

Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers	
		(in feet)	(in meters)
<b>Light (low)</b>	<b>5B</b>	<b>30</b>	<b>9.15</b>
	<b>10B</b>	<b>50</b>	<b>15.25</b>
<b>Ordinary (moderate)</b>	<b>10B</b>	<b>30</b>	<b>9.15</b>
	<b>20B</b>	<b>50</b>	<b>15.25</b>
<b>Extra (high)</b>	<b>40B</b>	<b>30</b>	<b>9.15</b>
	<b>80B</b>	<b>50</b>	<b>15.25</b>

NOTE 1: The specified rating does not imply that fires of the magnitudes indicated by these ratings will occur, but rather to give the operators more time and agent to handle difficult spill fires that may occur.

NOTE 2: For fires involving water soluble flammable liquids see Section 566 (d).

NOTE 3: For specific hazard applications see Section 566.

(b) Two or more extinguishers of lower rating shall not be used to fulfill the protection requirements of Table 3.

(c) The protection requirements may be fulfilled with extinguishers of higher ratings provided the travel distance to such larger extinguishers shall not exceed 50 ft. (15.25 m) as shown in Table 3.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.



**570. Fire Extinguisher Size and Placement for Class B Fires in Flammable Liquids of Appreciable Depth.**

(a) Portable fire extinguishers shall not be installed as the sole protection for flammable liquid hazards of appreciable depth [greater than 1/4 in. (0.64 cm)] where the surface area exceeds 10 sq ft (0.93 m<sup>2</sup>)

EXCEPTION: Where personnel who are trained in extinguishing fires in the protected hazards are available on the premises, the maximum surface area shall not exceed 20 sq. ft. (1.86 m<sup>2</sup>).

(b) For flammable liquid hazards of appreciable depth, a Class B fire extinguisher shall be provided on the basis of at least two numerical units of Class B extinguishing potential per sq ft (0.0929 m<sup>2</sup>) of flammable liquid surface of the largest hazard area. For fires involving cooking grease or water-soluble flammable liquids, see 566 (b) and 566 (d).

EXCEPTION: AFFF or FFFP type extinguishers may be provided on the basis of a 1B rating of protection per sq ft of hazard.

(c) Two or more extinguishers of lower ratings shall not be used in lieu of the extinguisher required for the largest hazard area.

EXCEPTION: Up to three AFFF or FFFP extinguishers may be used to fulfill the requirements provided the sum of the Class B ratings meets or exceeds the value required for the largest hazard area.

(d) Travel distances for portable extinguishers shall not exceed 50 ft (15.25 m) as shown in Table 3.

(e) Scattered or widely separated hazards shall be individually protected. An extinguisher in the proximity of a hazard shall be carefully located to be accessible in the presence of a fire without undue danger to the operator.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**571. Fire Extinguisher Size and Placement for Class C Hazards.**

(a) Fire extinguishers with Class C ratings shall be required where energized electrical equipment can be encountered which would require a nonconducting extinguishing medium. This requirement includes situations where fire either directly involves or surrounds electrical equipment. Since the fire itself is a Class A or Class B hazard, the fire extinguishers shall be sized and located on the basis of the anticipated Class A or Class B hazard.

NOTE: Electrical equipment should be de-energized as soon as possible to prevent reignition.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**572. Size and Placement for Class D Hazards.**

(a) Fire extinguishers or extinguishing agents with Class D ratings shall be provided for fires involving combustible metals.

(b) Fire extinguishers or extinguishing agents (media) shall be located not more than 75 ft (22.5 m) travel distance from the Class D hazard.

(c) Portable fire extinguishers or extinguishing agents (media) for Class D hazards shall be provided in those work areas where combustible metal powders, flakes, shavings, chips, or similarly sized products are generated.

(d) Size determination shall be in the basis of the specific combustible metal, its physical particle size, area to be covered, and recommendations by the extinguisher manufacturer on data from control tests conducted.

(e) The material safety data sheet for the Class D hazard involved should be consulted to assist in selecting the most effective extinguishing agent.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**573. Fire Extinguisher Size and Placement for Class K Fires.**

(a) Fire extinguishers with a Class K rating shall be provided for hazards where there is a potential for fires involving combustible cooking media (vegetable or animal oils and fats).

(b) Maximum travel distance shall not exceed 30 ft (9.15m) from the hazard to the extinguishers.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**Article 6. Inspection, Maintenance and Recharging**

**574.1. Frequency of Inspection, General.** Fire extinguishers shall be inspected, at least monthly by the building owner occupant or his/her authorized agent.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**574.2. Procedures.** Monthly inspection of extinguishers shall include a check of at least the following items:

- (a) Located in the designated place.
- (b) No obstruction to access or visibility.
- (c) Operating instructions on nameplate legible and facing outward.
- (d) Safety seals and tamper indicators not broken or missing.
- (e) Examine for obvious physical damage, corrosion, leakage or clogged nozzle.
- (f) Pressure gage reading or indicator in the operable range or position.
- (g) Determine fullness by hefting, and, if needed, by weighing.
- (h) For wheeled units, the condition of the tires, wheels, carriage, hose, and nozzle checked.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**574.3. Corrective Action.** When an inspection of any extinguisher reveals a deficiency in any of the conditions listed in (a), (b), and (h) of Section 574.2, immediate corrective action shall be taken.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**574.4. Rechargeable Extinguishers.** When an inspection of any rechargeable extinguisher reveals a deficiency in any of the conditions listed in (c), (d), (e), (f) and (g) of Section 574.2, it shall be subjected to applicable maintenance procedures.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**574.5. Nonrechargeable Extinguishers.** When an inspection of any nonrechargeable extinguisher reveals a deficiency in any of the conditions listed in (c), (d), (e), (f), and (g), of Section 574.2, it shall be discharged and removed from service.

EXCEPTION: Nonrechargeable extinguishers containing a halon agent shall be removed from service, not discharged, and returned to the manufacturer or local fire extinguisher distributor having the capability of recovering the halon agent.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**574.6. Recordkeeping.**

- (a) Personnel making inspections shall keep records of all fire extinguishers inspected, including those extinguishers that were found to require corrective actions.
- (b) At least monthly, the date the inspection was performed and the initials of the person performing the inspection shall be recorded on a tag or label attached to the fire extinguisher, or an inspection checklist maintained on file, or an electronic system (e.g. bar coding) that provides a permanent record.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**575. Servicing, General**

Servicing which includes maintenance, recharging and hydrostatic testing shall be performed by concerns licensed by the State Fire Marshal having available the appropriate servicing manual(s), the proper types of tools, recharging agents and materials, lubricants, and manufacturer's recommended replacement parts or parts of equal quality. Maintenance, recharging and hydrostatic testing shall be done in accordance with the appropriate manufacturer's service manual (s) and the requirements of this chapter.

**575.1 Maintenance and Required Service Intervals.**

(a) Fire extinguishers shall be subjected to maintenance annually as described in this chapter or immediately after use or when specifically indicated by an inspection or at the time of hydrostatic test. For purposes of maintenance, hydrostatic tests required during the same calendar year shall be performed at the time of the annual maintenance or recharge.

(b) Nonrechargeable fire extinguishers shall not be recharged or hydrostatically tested but shall be discharged and removed from service at a maximum interval of 12 years from the date of manufacture.

EXCEPTION: Nonrechargeable fire extinguishers containing a halon agent shall be removed from service, not discharged, and returned to the manufacturer or fire extinguisher distributor having the capability of recovering the halon agent.

(c) When additional fire extinguishers are installed in excess of those required, the additional extinguishers shall be subjected to maintenance and hydrostatically tested in the same manner and at intervals as set forth in this chapter for required extinguishers.

(d) New fire extinguishers that are fully charged by the manufacturer shall, after being sold, be subjected to maintenance within one year from the date of manufacture in accordance with this chapter. If only the year is shown, the new extinguisher shall be due for maintenance by January 1st of the year following the year of manufacture in accordance with this chapter.

EXCEPTION: A licensed fire extinguisher concern may attach the tag described in Section 596.1(a) and punch the new extinguisher block and date the extinguisher was sold. Extinguishers tagged in this manner shall be subjected to maintenance one year from the date on the tag in accordance with this chapter. Extinguishers more than two years old from date of manufacture shall not be tagged as new extinguishers.

(e) At the time of installation and at each annual maintenance, extinguishers shall be placed in a fully charged and operable condition free from defects which may cause malfunctions.

(f) At the time of service, hydrostatic testing, or at any time when parts are replaced, an itemized invoice showing work performed and parts replaced shall be provided by the licensee to the owner or possessor of the fire extinguisher.

(g) The licensee shall offer to return all replaced parts to the portable fire extinguisher owner or owner's representative, except such parts as the licensee is required to return to the manufacturer of the portable fire extinguisher under any warranty arrangement.

(h) Annual maintenance or recharging shall not be performed more than 30 days before the date the maintenance, service or recharge is due. This section shall not rule out the maintenance required by Section 575.1 (a).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, 13190.3, Health and Safety Code.

#### **575.2. Maintenance Requirements.**

(a) The procedures outlined in this chapter are common to most fire extinguishers and shall be performed at each annual maintenance, in addition to the manufacturer's instructions or other requirements of this chapter. All contents shall be emptied from the extinguisher, except as provided herein in this chapter.

(b) Mechanical Parts. Any parts needed for replacement shall be the manufacturer's recommended replacement parts or parts of equal quality. Parts not designated as the manufacturer's recommended replacement parts shall be proven by a recognized testing laboratory to be of equal quality.

(c) If the source of leakage cannot be corrected by parts replacement, extinguishers shall be removed from service in accordance with Section 577.1 of this chapter.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13177, 13190.3, Health and Safety Code.

#### **575.3 Maintenance Procedures.**

(a) Maintenance procedures shall include a thorough examination of the three basic elements of an extinguisher:

- (1) mechanical parts
- (2) extinguishing agent
- (3) expelling means

EXCEPTION: During annual maintenance, it is not necessary to internally examine non-rechargeable fire extinguishers, carbon dioxide fire extinguishers, stored pressure dry chemical fire or dry powder fire extinguishers that require a 12 year hydrostatic test, halogenated agent fire extinguishers, wet chemical fire extinguishers or AFFF/FFFP fire extinguishers that use a pre-mixed charge. However, such extinguishers shall be thoroughly examined externally in accordance with the applicable items of 575.3 (a) (1) and Table 4.

For Stored Pressure Dry Chemical and Dry Powder Fire Extinguishers, see Section 575.4  
For Carbon Dioxide Fire Extinguishers, see Section 575.5

For Stored Pressure Halogenated Agent Fire Extinguishers, see Section 575.6

For Stored Pressure Water Type Fire Extinguishers, see Section 575.7

For AFFF and FFFP Fire Extinguishers that use a pre-mixed charge, see Section 575.8.

For Stored Pressure Wet Chemical Fire Extinguishers, see Section 575.16.

(b) Fire extinguishers shall be thoroughly examined externally and the appropriate corrective action performed in accordance with the applicable items of Table 4, External Examination Maintenance Checkpoints.

(c) Fire extinguishers shall be weighed on accurate scales and it shall be verified that the total weight is within the allowable tolerances specified by the manufacturer.

Exception: Water-type and wet chemical fire extinguishers that have the liquid amount specified on the extinguisher shell, a fill level mark or an anti-overfill tube.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**TABLE 4**  
External Examination Maintenance Checkpoints

**Shell**

1. Hydrostatic test date or date of manufacturer\*
2. Corrosion\*
3. Mechanical damage (denting or abrasion)\*
4. Paint Condition
5. Presence of repairs (welding, soldering, brazing, etc.)
6. Broken hanger attachment, carrying handle lug

**Corrective Action**

1. Retest, if needed
2. Conduct hydrostatic test and refinish, or discard
3. Conduct hydrostatic test and refinish, or discard
4. Refinish
5. Discard or consult manufacturer
6. Discard or consult manufacturer

**Nameplate**

1. Illegible wording
2. Corrosion or loose plate

**Corrective Action**

1. Clean or replace
2. Inspect shell under plate and reattach plate

**Nozzle or Horn**

1. Damaged (cut, cracked, or worn)
2. Blocked openings
3. Damaged threads (corroded, crossed, or worn)
4. Aged (brittle)

**Corrective Action**

1. Replace
2. Clean
3. Replace
4. Replace

**Hose Assembly**

1. Damaged (cut, cracked, or worn)
2. Damaged coupling or swivel joint (cracked or corroded)
3. Damaged threads (corroded, crossed, or worn)
4. Inner tube cut at couplings
5. Electrically nonconductive between couplings (CO<sub>2</sub> hose only)
6. Hose obstruction
7. Damaged or missing hose retainer

**Corrective Action**

1. Replace
2. Replace
3. Replace
4. Repair or replace
5. Replace
6. Remove obstruction or replace
7. Repair or replace

**Pull Pin or Valve Locking Device**

1. Damaged (bent, corroded, or binding)
2. Missing

**Corrective Action**

1. Repair and lubricate, or replace
2. Replace

**Gauge or Pressure-Indicating Device**

1. Damaged or missing pointer\*
2. Missing, deformed, or broken crystal\*
3. Illegible or faded dial\*
4. Corrosion\*
5. Dented case or crystal retainer\*
6. Immovable or corroded pressure-indicating stem (nongauge type)\*

**Corrective Action**

1. Perform internal maintenance and replace gauge
2. Perform internal maintenance and replace gauge
3. Perform internal maintenance and replace gauge
4. Perform internal maintenance and replace gauge
5. Perform internal maintenance and replace gauge
6. Replace head assembly, depressurize, and replace shell or complete extinguisher

**Shell or Cylinder Valve**

1. Corroded, damaged or jammed lever, handle, spring, stem, or fastener joint\*
2. Damaged outlet threads (corroded, crossed, or worn)\*

**Corrective Action**

1. Perform internal maintenance and repair or replace as necessary
2. Perform internal maintenance and replace

**Agent and Expelling Means**

1. Improper extinguisher weight
2. Improper gauge pressure

**Corrective Action**

1. Perform internal maintenance and recharge
2. Perform internal maintenance and recharge

**TABLE 4 (Continued)**

**Nozzle Shutoff Valve**

1. Corroded, damaged, jammed or binding lever, spring, stem, or fastener joint
2. Plugged, deformed, or corroded nozzle tip or discharge passage

**Corrective Action**

1. Repair and lubricate, or replace
2. Clean or replace

**Nonrechargeable Shell**

1. Corrosion\*
2. Damaged seal disc (injured, cut, or corroded)\*
3. Damaged threads (corroded, crossed, or worn)
4. Illegible weight markings\*

**Corrective Action**

1. Discard shell
2. Discard shell
3. Discard shell
4. Discard shell

**Carriage and Wheels**

1. Corroded, bent, or broken carriage
2. Damaged wheel (buckled or broken spoke, bent rim or axle, loose tire, low pressure, jammed bearing)

**Corrective Action**

1. Repair or replace
2. Clean, repair, and lubricate, or replace

**Carrying Handle**

1. Broken handle lug
2. Broken handle
3. Corroded, jammed, or worn fastener joint

**Corrective Action**

1. Discard shell or valve, or consult manufacturer
2. Replace
3. Clean or replace

**Seal or Tamper Indicator**

1. Broken or missing

**Corrective Action**

1. Perform internal maintenance

**Brackets**

1. Corroded, worn, or bent
2. Loose or binding fit
3. Worn, loose, corroded, or missing screw or bolt
4. Worn bumper, webbing, or grommet

**Corrective Action**

1. Repair and refinish, or replace
2. Adjust fit or replace
3. Tighten or replace
4. Replace

**Safety Relief Device**

1. Corroded or damaged\*
2. Broken, operated, or plugged\*

**Corrective Action**

1. Depressurize and replace or consult manufacturer
2. Depressurize and replace or repair

---

For nonrechargeable extinguishers, those items indicated with an asterisk cannot be inspected and serviced. If the corrective action requires the depressurization of the extinguisher, nonrechargeable halogenated agent fire extinguishers shall not be depressurized but shall be returned to the manufacturer or fire extinguisher distributor having the capability of recovering the halogenated agent.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

#### **575.4. Dry Chemical and Dry Powder Portable Fire Extinguishers.**

##### **(a) Stored Pressure Extinguishers**

(1) Every 6 years stored pressure dry chemical and dry powder fire extinguishers that require a 12 year hydrostatic test shall be discharged, emptied and subjected to the applicable maintenance procedures as specified by the manufacturer's requirements.

(2) Stored pressure dry chemical and dry powder extinguishers shall be fully discharged to check the operation of the discharge valve and pressure gauge.

(3) The dry chemical agent may be reused provided an approved closed recovery system is used and the agent is stored in a sealed container to prevent contamination.

(4) Prior to reuse, the dry chemical or dry powder agent shall be thoroughly checked to insure:

- (A) Appropriate type agent.
- (B) Agent is not contaminated.
- (C) Agent is in a free flowing powdery condition.

(5) Where doubt exists with respect to the type, contamination, or condition of the dry chemical or dry powder agent, the agent shall be discarded.

##### **(b) Cartridge and Cylinder Operated Extinguishers.**

(1) At the time of annual maintenance, cartridge and cylinder operated dry chemical and dry powder fire extinguishers shall be emptied.

(2) Prior to reuse, the dry chemical or dry powder agent shall be thoroughly checked to insure:

- (A) Appropriate type agent.
- (B) Agent is not contaminated.
- (C) Agent is in a free flowing powdery condition.

(3) Where doubt exists with respect to the type, contamination, or condition of the dry chemical or dry powder agent, the agent shall be discarded.

(4) Cartridges of cartridge operated portable fire extinguishers shall be replaced when the loss of weight as compared with the original weight as stamped on the cartridge is equal to or more than that as permitted in instructions on the label.

(5) Cartridges of every cartridge-operated extinguisher shall be weighed annually. The minimum graduation for the scale shall not be larger than 1/100 of the cartridge being weighed and shall be accurate to plus or minus one scale graduation. Scales used in commercial applications (legal for trade) shall comply with Sections 12500(a) and 12501.1, of the California Business and Professions Code and Section 4000, Title 4, of the California Code of Regulations. Straight faced spring scales (i.e. fish scales) shall not be used.

(6) Replacement cartridges for cartridge operated extinguishers shall conform to the manufacturer's requirements.

##### **(c) Multipurpose dry chemicals shall not be mixed with alkaline-based dry chemicals.**

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13177, Health and Safety Code.



**575.5. Carbon Dioxide Extinguishers.** Internal maintenance of carbon dioxide extinguishers shall be performed every 5 years at the time of hydrostatic test. The components shall be replaced in accordance with the manufacturer's recommendations.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**575.6 Halogenated Agent Extinguishers.**

- (a) Every 6 years, stored pressure halogenated fire extinguishers that require a 12-year hydrostatic test shall be emptied and subjected to the maintenance procedures as required by Article 6.
- (b) The removal of Halon 1211 from fire extinguishers shall only be done using a halon closed recovery system in compliance with the 1997 3rd Edition of the UL Standard 2006, Standard for Halon 1211 Recovery/Recharge Equipment. The removal of agent from other halogenated agent fire extinguishers shall only be done using a closed recovery system.
- (c) The extinguisher cylinder shall be examined internally for contamination and/or corrosion. The halogenated agent retained in the system recovery cylinder shall only be used if no evidence of internal contamination is observed in the extinguisher cylinder. Halogenated agent removed from extinguishers that contain evidence of internal contamination or corrosion shall be processed in accordance with the manufacturer's instruction.
- (d) When the applicable maintenance procedures are performed during periodic recharging or hydrostatic testing, the 6-year requirement shall begin from that date of the recharging or testing.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**575.7. Stored Pressure Water Type Extinguishers.** Stored pressure extinguishers containing a water or loaded stream agent shall be disassembled on an annual basis and subjected to a complete maintenance in accordance with Section 575.3. Prior to disassembly, the extinguisher shall be fully discharged to check the operation of the discharge valve and pressure gauge.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**575.8. AFFF and FFFP Extinguishers.** AFFF and FFFP fire extinguishers shall be maintained in accordance with the following:

- (a) Pre-Mix: Extinguisher shall be externally examined annually, and broken down and the agent replaced every three years.
- (b) Solid Type:
  - (1) Cartridge shall be removed and the extinguisher serviced in accordance with Section 575.3, and the cartridge re-installed.
  - (5) Cartridges shall be replaced with a new one every five years.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**575.9. Pump-Tank Extinguishers.** Every 12 months, pump-tank water and pump-tank calcium chloride base antifreeze types of extinguishers shall be recharged with new chemicals or water, as applicable.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**575.10. Out of Service.** Fire extinguishers removed from service for maintenance or recharge shall be replaced by fire extinguishers suitable for the type of hazard protected and shall be of at least equal rating.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**575.11 Safety Pins.** Upon completion of annual maintenance, an extinguisher shall have installed a safety pin compatible with the valve required by the ANSI/UL standards contained in 561.2. The safety pin shall be held in place with a seal as specified in Section 575.12.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code.

**575.12 Seals or Tamper Indicators.**

(a) A tamper seal or tamper indicator shall be provided on every portable fire extinguisher. Tamper seals shall be component recognized by an approved testing laboratory for use on fire extinguishers or be the manufacturer's approved replacement.

(b) At the time of maintenance, the tamper seal of rechargeable fire extinguishers shall be removed by operating the pull pin or locking device. After the applicable maintenance procedures are completed, a new tamper seal shall be installed.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160 and 13162, Health and Safety Code.

**575.13. Anti-freeze Solution.**

Anti-freeze solution for anti-freeze extinguishers shall be put through a fine strainer prior to placing it into the extinguisher so as to prevent any possibility of undissolved salts impairing the normal function of the extinguisher.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, Health and Safety Code.

**575.14. Nitrogen Cylinder Operated Wheeled Extinguishers.**

Pressure regulators and nitrogen cylinders on wheeled fire extinguishers shall be maintained in accordance with manufacturer's instructions.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13177, Health and Safety Code.

### **575.15 Conductivity Test.**

(a) An annual conductivity test shall be conducted on all carbon dioxide hose assemblies. Hose assemblies found to be nonconductive shall be replaced.

(b) Carbon dioxide hose assemblies that pass a conductivity test shall have the test information recorded on a suitable metallic label or equally durable material that has a minimum size of ½ in. x 3 in. (1.3 cm x 7.6 cm). The label shall be affixed to the hose by means of a heatless process. The label shall include the following information:

(1) Month and year the test was performed, indicated by perforation, such as is done by a hand punch.

(2) Initials and EE# of person performing the test.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

### **575.16 Wet Chemical Fire Extinguishers.**

Internal maintenance of wet chemical fire extinguishers shall be performed every 5 years at the time of hydrostatic test in accordance with the manufacturer's recommendations.

Authority: Health and Safety Code Section 13160

Reference: Health and Safety Code Section 13160

### **576.1. Maintenance Recordkeeping.**

Upon completion of the maintenance procedures prescribed by Section 575.3, each portable fire extinguisher shall be fitted with an annual maintenance tag as prescribed in Article 9.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code.

### **577.1. Condemned Extinguishers.**

(a) Portable fire extinguishers shall not be repaired except as permitted by manufacturer's instructions using manufacturer's recommended replacement parts or parts of equal quality. Portable fire extinguishers shall not be converted from one type or class to another type or class of extinguisher.

(b) Portable fire extinguishers which have been repaired, converted or altered in conflict with Section 575.2(c) are prohibited from use as portable fire extinguishers. Such extinguishers shall be removed from service and tagged with a red tag bearing the term "Condemned" on each face.

EXCEPTION: The exchange of defective or broken parts with approved parts as defined in Section 557.16(b) or equipment or materials listed as defined in Section 557.12(c) shall not be construed as "repair".

(c) Condemned portable fire extinguishers shall be destroyed by the owner or at the owner's direction.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code.

### **577.2. Obsolete Fire Extinguishers.**

The following types of fire extinguishers are considered obsolete and shall be removed from service:

- (1) Soda acid types
- (2) Chemical foam (excluding AFFF and FFFP)
- (3) Vaporizing liquid (e.g., carbon tetrachloride)
- (4) Cartridge-operated water
- (5) Cartridge-operated loaded stream
- (6) Copper or brass shell fire extinguishers (excluding pump tanks) joined by soft solder or rivets
- (7) Stored pressure water extinguishers with fiberglass shells

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

### **578.1. Recharging, General :**

- (a) All rechargeable type extinguishers shall be recharged after use or as indicated by an inspection or when performing maintenance.
- (b) When performing the recharging, the recommendations of the manufacturers shall be followed. For recharge chemicals, see Section 578.2.
- (c) The amount of recharge agent shall be verified by weighing on an accurate scale. The total weight shall be within the allowable tolerances specified by the manufacturer.

Exception: Water-type and wet chemical fire extinguishers that have the liquid amount specified on the extinguisher shell, a fill level mark or an anti-overfill tube.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.2. Recharge Agents.** Only those agents specified on the nameplate, or agents proven to have equal chemical composition, physical characteristics and fire extinguishing capabilities shall be used. Agents listed specifically for use with the fire extinguisher shall be considered to comply with the requirements of this section.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.3. Dry Powder.** Pails or drums containing dry powder agents for scoop or shovel application for use on metal fires shall be kept full and covered at all times. The dry powder shall be replaced if found damp.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.4. Replacement Pressure Gauge.** Replacement pressure gauges shall have the proper indicated charging (service) pressure, be marked for use with the agent in the extinguisher and be compatible with the extinguisher valve body material.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

#### **578.5. Precautionary Pressurization Measures.**

(a) A rechargeable stored pressure type extinguisher shall be pressurized only to the charging pressure specified on the extinguisher nameplate. A regulated source of pressure, set no higher than 25 psi (172 kPa) above the operating (service) pressure, shall be used to pressurize fire extinguishers. An unregulated source of pressure, such as a nitrogen cylinder without a pressure regulator, shall never be used because the fire extinguisher could be over-pressurized and possibly rupture. A fire extinguisher shall never be left connected to the regulator of a high-pressure source for an extended period of time. A defective regulator could cause the container to rupture due to excess pressure.

(b) The gauge used to set the regulated source of pressure shall be calibrated at least annually.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.6. Pressurizing Gas.** Only standard industrial grade nitrogen with a dew point of -60°F (-51°C) or lower (CGA nitrogen specification G10.1, grades D through P) shall be used to pressurize stored pressure dry chemical, dry powder and Halon type fire extinguishers. Compressed air through moisture traps shall not be used for pressurizing even though so stated in the instructions on older fire extinguishers.

EXCEPTION No. 1: Compressed air may be used from special compressor systems capable of delivering air with a dew point of -60°F (-51.1°C) or lower. The special compressor system shall be equipped with an automatic monitoring and alarm system to ensure that the dew point remains at or below -60°F (-51.1°C) at all times.

EXCEPTION No. 2: Some fire extinguishers are required to be pressurized with argon. They shall be repressurized only with the type of expellant gas referred to on the fire extinguisher label.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.7. Conversion of Extinguisher Types.** No extinguisher shall be converted from one type to another, nor shall any extinguisher be converted to use a different type of extinguishing agent.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.8. Removal of Moisture.** For all non-water types of extinguishers any moisture shall be removed before recharging.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.9. Carbon Dioxide Recharging.** The vapor phase of carbon dioxide shall not be less than 99.5 percent carbon dioxide. The water content of the liquid phase shall not be more than 0.01 percent by weight [-30°F (-34.4°C) dew point]. Oil content of the carbon dioxide shall not exceed 10 ppm by weight.

NOTE: Carbon Dioxide obtained from dry ice converters will generally be unsatisfactory unless it is properly processed to remove excess water and oil. The preferred source of carbon dioxide for recharging extinguishers is from a low-pressure supply, either directly or via dry cylinders used as an intermediary means.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

#### **578.10. Leak Test.**

(a) After charging, a leak test shall be performed on all stored pressure and self-exPELLing type fire extinguishers. Leak tests shall be performed by following the manufacturer's requirements and may include applying a leak test solution or a solution of soapy water.

(b) Leak testing of halogenated agent extinguishers shall not use water. A halogenated gas leak detector shall be used to determine leakage.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.11. Recharging Water Types.** When recharging stored pressure extinguishers, overfilling resulting in improper discharge is to be avoided. The proper amount of liquid agent shall be determined by using one of the following:

- (a) exact measurement in gallons, or by weight.
- (b) use of an anti-overfill tube when provided, or
- (c) use of a fill mark on extinguisher shell, when provided.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**578.12. Wet Chemical Agent Re-use.** Wet chemical agents shall not be re-used. If a wet chemical extinguisher is partially discharged, all remaining wet chemical shall be discarded.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

### **Article 7. Hydrostatic Testing**

**591.1. Hydrostatic Testing, General.** Hydrostatic testing shall be performed by persons licensed by the State Fire Marshal in pressure testing procedures and safeguards, and having available suitable testing equipment, facilities and appropriate servicing manual(s).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**591.2. Corrosion.** If, at any time, an extinguisher shows evidence of corrosion or mechanical damage, it shall be hydrostatically tested, subject to the provisions of Section 591.6.

EXCEPTION No. 1: Pump tanks do not require a hydrostatic test.

EXCEPTION No. 2: Extinguishers having nonrefillable disposable containers shall be removed from service in accordance with Section 574.5.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**591.3. Written Certification.** Written approval from the D.O.T. to operate the equipment must be obtained by a licensed portable fire extinguisher concern before performing D.O.T. required hydrostatic tests of cylinders. This written approval shall be available to the State Fire Marshal or authorized representative for inspection.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13177, Health and Safety Code.

**591.4. Restricted Service.** Any portable fire extinguisher requiring a hydrostatic test shall not be serviced until such extinguisher has been subjected to and passed the required hydrostatic test.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13177, Health and Safety Code

**591.5. Replacement Extinguisher.** Portable fire extinguishers shall not be removed from the premises for hydrostatic testing or any other purpose, without first replacing the extinguisher with a comparable unit.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code

**591.6. Examination of Cylinder Condition.** When a extinguisher cylinder or shell has one or more conditions listed in this section, it shall be destroyed by the owner or at the owner's direction:

- (a) When there exists repairs by soldering, welding, brazing, or use of patching compounds.  
NOTE: For welding or brazing on mild steel shells, consult the manufacturer of the extinguisher.
- (b) When the cylinder or shell threads are damaged.
- (c) When there exists corrosion that has caused pitting, including under removable nameplate band assemblies.
- (d) When the extinguisher has been burned in a fire.
- (e) When a calcium chloride type of extinguishing agent was used in a stainless steel extinguisher.
- (f) When the shell is of copper or brass construction joined by soft solder or rivets.
- (g) All inverting-type extinguishers.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**591.7. Aluminum Shell/Cylinder.** Extinguishers having aluminum cylinders or shells suspected of being exposed to temperatures in excess of 350°F (177°C) shall be removed from service.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**592. Frequency.** At Intervals not exceeding those specified in Table 5, extinguishers shall be hydrostatically tested.

EXCEPTION No. 1: Nonrefillable factory-sealed disposable containers do not require hydrostatic testing. (See Section 592.4.)

EXCEPTION No. 2: Extinguishers utilizing a cylinder that has been manufactured to D.O.T. specifications shall be hydrostatically tested, or replaced, according to the requirements of D.O.T.

EXCEPTION No. 3: For extinguishers not covered in Exceptions No. 1 and 2 the first retest may be conducted within 12 months of the specified test intervals.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**592.1. Compressed Gas Cylinders and Cartridges.** Nitrogen cylinders or cartridges used for inert gas storage used as an expellant for wheeled extinguishers shall be hydrostatically tested every five years.

EXCEPTION: Cylinders (except those charged with carbon dioxide) complying with Part 173.34(e) 15, Title 49, Code of Federal Regulations, shall be hydrostatically tested every 10 years.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**592.2. Hose Assemblies.**

(a) A hydrostatic test shall be performed on extinguisher hose assemblies, which are equipped with a shutoff nozzle at the end of the hose. The test interval shall be the same as specified for the extinguisher on which the hose is installed.

(b) Test pressures for hose assemblies shall be as follows:

(1) Carbon Dioxide - 1,250 psi

(2) Dry Chemical - 300 psi or at service pressure, whichever is higher.

(c) Hose assemblies passing the hydrostatic test shall be thoroughly dried internally. If heat is used, the temperature shall not exceed 150°F (66°C).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**592.3 Vehicles.** Extinguishers installed on vehicles shall be hydrostatically tested every five years.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**592.4. Nonrefillable Factory-sealed Disposable Containers.** Nonrefillable factory-sealed disposable containers shall not be reused and shall be disposed of pursuant to the requirements of Section 574.5.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**TABLE 5**

**Hydrostatic Test Interval For Extinguishers**

<u>Extinguisher Type</u>	<u>Test Interval (Years)</u>
Stored Pressure Water and/or Antifreeze/Loaded Stream	5
AFFF (Aqueous Film Forming Foam)	5
FFFP (Film Forming Fluoroprotein Foam)	5
Wet Chemical	5
Dry Chemical With Stainless Steel Shells	5
Carbon Dioxide	5
Dry Chemical, Stored Pressure with Mild Steel Shells, Braze Brass Shells, or Aluminum Shells	12
Dry Chemical, Cartridge and Cylinder-Operated, with Mild Steel Shells	12
Halogenated Agents	12
Dry Powder, stored pressure, cartridge or cylinder operated with mild steel shells	12



**593.1. Test Pressures, High Pressure Cylinders.**

(a) Carbon dioxide extinguishers shall be tested at 5/3 the service pressure as stamped into the cylinder.

EXCEPTION: Carbon dioxide extinguishers having cylinder specification ICC3 shall be tested at 3,000 psi (20,685 kPa).

(b) Nitrogen cylinders and carbon dioxide cylinders used with wheeled extinguishers shall be tested at 5/3 the service pressure as stamped into the cylinder.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**593.2. Stored Pressure Types.** All stored pressure types of extinguishers shall be hydrostatically tested at the factory test pressure not to exceed three times the normal operating pressure.

EXCEPTION: Extinguishers manufactured to D.O.T. specifications shall be hydrostatically tested according to the requirements of D.O.T.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**593.3. Cartridge-Operated Types.** Cartridge-cylinder-operated dry chemical and dry powder types of extinguishers shall be hydrostatically tested at their original factory test pressure as shown on the nameplate or shell.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**594.1. Test Equipment and Procedures, General.** When extinguisher shells, cartridges or cylinders fail a hydrostatic pressure test, they shall be destroyed by the owner or at the owner's direction.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**594.2. Test Equipment for D.O.T. Specification Cylinders.** The equipment for testing D.O.T. specification cylinders shall be of the type that meets the specifications of the pamphlet Methods for Hydrostatic Testing of Compressed Gas Cylinders (Pamphlet C-1), published by the Compressed Gas Association.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**594.3. Test Equipment for Low Pressure Non-D.O.T. Specification Cylinders and Hose Assemblies.**

(a) The required equipment for testing low pressure non-D.O.T. specification cylinders and hose assemblies consists of the following:

(1) Cylinders and hose assemblies shall be tested within a protective cage device, or placed behind a protective shield, that will permit visual observation while under pressure for leaks, bulges, and other harmful defects.

(2) A hydrostatic test pump, hand or power operated, shall be capable of producing not less than 150 percent of the test pressure. It is to include appropriate check valves and fittings.

(3) A flexible connection between the test pump and the test cylinder shall be provided with necessary fittings to test through the extinguisher nozzle, test bonnet, or hose outlet, as applicable.

(4) Licensed individuals and licensed companies performing this service shall maintain a license in conformance with section 595.5 (a).

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

#### **594.4. Testing Procedures.**

(a) D.O.T. specification cylinders.

(1) In addition to the visual examinations required prior to test as stated in Section 591.6, an internal examination shall be made prior to the hydrostatic test. The procedures for this internal examination shall be in accordance with the requirements of the Standard for Visual Inspection of High Pressure Aluminum Compressed Gas Cylinders (CGA C-6.1), published by the Compressed Gas Association.

(2) The hydrostatic testing of D.O.T. specification cylinders shall be in accordance with the procedures specified in the pamphlet Methods for Hydrostatic Testing of Compressed Gas Cylinders (Pamphlet C-1), published by the Compressed Gas Association.

(b) Low Pressure Non-D.O.T. Specification Cylinders.

(1) All valves and internal parts shall be removed and the extinguisher emptied.

EXCEPTION: On some dry chemical and dry powder extinguishers (cartridge-operated), the manufacturer recommends that certain internal parts not be removed.

(2) All traces of extinguishing materials removed from the inside of dry chemical and dry powder type shells before filling with the test liquid.

(3) The cartridges, and some cartridge receivers of dry chemical and dry powder extinguishers having externally mounted gas cartridges, shall be removed and a suitable plug inserted into the shell opening at the point of removal.

(4) On wheeled extinguishers of the stored-pressure water, loaded stream, or cartridge-operated types, the discharge nozzle shall be removed and the complete remaining assembly, including the hose, then tested as described in Section 592.2.

(5) On all wheeled dry chemical, dry powder, Halon 1211, AFFF/FFFP, and carbon dioxide extinguishers equipped with a shutoff nozzle at the outlet end of the hose, the hose (complete with couplings but without the discharge nozzle) shall be removed and tested separately.

(6) On all wheeled stored pressure dry chemical extinguishers, the head assembly is to be removed and be replaced with a suitable test bonnet.

(7) The hose of the hydrostatic test pump is then attached by the flexible connection to the discharge nozzle, hose assembly, test bonnet, or test fitting, as is applicable. In the case of wheeled dry chemical and dry powder extinguishers, procedures and fittings should be those recommended by the manufacturer.

(8) The test liquid supply to the test pump is to be turned on and the extinguisher then filled to the top of its collar.

(9) For extinguishers tested with their cap in place, the cap must be tightened SLOWLY while the test liquid supply remains open. When all of the entrapped air within the shell has been bled off and after test liquid emerges, the cap must be tightened fully.

(10) For extinguishers tested with a test bonnet or fitting, the bonnet or fitting must be tightened FULLY while the water supply remains open. When all of the entrapped air within the shell has been bled off and after test liquid emerges, the vent must be closed tightly.

(11) Pressure is then applied at a rate-of-pressure rise so the test pressure is reached in not less than 30 seconds. This test pressure is maintained for at least 30 seconds. Observations are made at this time to note any distortion or leakage of the extinguisher shell.

(12) If no distortion or leakage is noted and if the test pressure has not dropped, the pressure on the extinguisher shall be released. The extinguisher is then considered to have passed the hydrostatic test.

(13) All traces of test liquid and moisture must be removed from all dry chemical, dry powder, and halogenated agent extinguishers by use of a cylinder dryer. If a heated air stream is used, the temperature within the shell must not exceed 150°F (66°C).

(14) Any extinguisher shell that fails this hydrostatic test must be destroyed by the owner or at the owner's discretion.

(c) Testing Procedures -- Hose Assemblies.

(1) The discharge nozzle must be removed from the hose assembly without removal of any hose couplings.

(2) For dry chemical and dry powder types, all traces of dry chemical or dry powder must be removed.

(3) The hose must be completely filled with test liquid before testing.

(4) Pressure is then applied at a rate-of-pressure rise to reach the test pressure within one minute. The test pressure is to be maintained for one full minute. Observations are then made to note any distortion or leakage.

(5) If no distortion or leakage is noted, or the test pressure has not dropped, or the couplings have not moved, the pressure is then to be released. The hose assembly is then considered to have passed the hydrostatic test.

(6) Hose assemblies passing the test shall be dried internally. If heat is used for drying, the temperature shall not exceed 150 F (60°C).

(7) Hose assemblies failing a hydrostatic test must be destroyed by the owner or at the owner's direction.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**594.5. Recording of Tests.**

(a) High Pressure D.O.T. Specification Cylinders. For high pressure cylinders passing a hydrostatic test, the month and year shall be stamped in accordance with the requirements set forth by D.O.T.. Recording (stamping) shall be placed only on the shoulder, top head, neck, or footring (when so provided) of the cylinder.

(b) Low Pressure D.O.T. Cylinders. Extinguisher shells of low pressure D.O.T. cylinders that pass a hydrostatic test shall have the test information provided in accordance with D.O.T. requirements and recorded on a suitable metallic label or equally durable material. The label shall be affixed by a heatless process to the shell. These labels shall be self-destructive when removal from an extinguisher shell is attempted. The label shall include the following information.

(1) Month and year the test was performed, indicated by a perforation, such as by a hand punch.

(2) Test pressure used.

(3) Name, address and license number (E#) of the concern.

(4) For D.O.T. Specification cylinders, the D.O.T. Retesters Identification Number (RIN), if applicable.

(5) For D.O.T. Specification cylinders, the letter "S" if the Modified Test Method was used.

(c) Low Pressure (non-D.O.T.) Cylinders. Extinguisher shells of low-pressure non-D.O.T. cylinders that pass a hydrostatic test shall have the test information recorded on a suitable metallic label or equally durable material. The label shall be affixed by a heatless process to the shell. These labels shall be self-destructive when removal from an extinguisher shell is attempted. The label shall include the following information.

(1) Month and year the test was performed, indicated by a perforation, such as by a hand punch.

(2) Test pressure used.

(3) Name, address and license number (E#) of the concern.

(4) A written or electronic log shall be maintained of all low-pressure (non-D.O.T.) cylinders which are hydrostatically tested. The log information shall be patterned after the D.O.T. recording requirements and shall include, but will not be limited to; the date, location of extinguisher, type, rating, brand, serial number and the name and EE# of individuals performing the service and the E# of the company they work for.

(d) Hose assemblies. Hose assemblies passing a hydrostatic test do not require recording.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

## **Article 8. Licensing and Certificates of Registration**

### **595.1. Document Transfers.**

(a) A license or a Certificate of Registration is not transferable except by the State Fire Marshal.

(b) The State Fire Marshal may transfer a license number upon submission of a new license application form and payment of appropriate fees.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13175, 13178, 13184, Health and Safety Code.

**595.2. Expired Documents.** Application for renewal of any class of license or for a Certificate of Registration which has expired shall be considered as an original application.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13166, 13167, 13179, 13180, 13189, Health and Safety Code.

### **595.3. Minimum Ages.**

(a) A license shall not be issued to any person under 18 years of age.

(b) A Certificate of Registration shall not be issued to any person under 18 years of age.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**595.4. Duplicate Issuance.** A duplicate license or Certificate of Registration may be issued by the State Fire Marshal. A written statement describing the reasons for the duplicate issuance shall be submitted by the licensee or registrant before duplicates will be issued. The statement shall explain fully the reason for the destruction of the license. A Fee equal to fifty percent (50%) of the original fee shall be submitted for the issuance of a duplicate certificate of registration.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13175, 13183, Health and Safety Code.

### **595.5. Fire Extinguisher License Types.**

(a) Types of licenses are as follows:

(1) Type A. A class of license to service any or all types of fire extinguishers including (2), (3), (4), (5), and (6), below.

(2) Type B. A class of license to perform maintenance and recharging of water based fire extinguishers, and external maintenance of carbon dioxide fire extinguishers.

(3) Type C. A class of license to conduct hydrostatic tests of low pressure fire extinguisher cylinders and the fire extinguisher concern shall possess the test equipment as specified in section 594.3 (a) for non-D.O.T. specification cylinders. A fire extinguisher concern possessing this class of license shall be a D.O.T. approved cylinder requalification facility if D.O.T. specification cylinders are tested and the fire extinguisher concern shall possess the test equipment as specified in section 594.2.

(4) Type D. A class of license to perform maintenance and recharging of dry chemical, dry powder and external maintenance of halogenated agent fire extinguishers.

(5) Type E. A class of license to conduct hydrostatic tests of high pressure fire extinguisher cylinders, and perform internal maintenance and recharging of carbon dioxide fire extinguishers. A fire

extinguisher concern possessing this class of license shall be a DOT approved cylinder requalification facility.

(6) Type F. A class of license to perform internal maintenance, recharge and recover halogenated agents from portable fire extinguishers. A fire extinguisher concern possessing this license shall have a listed Halon 1211 closed recovery system.

(7) Type L. (Limited). A class of license, limited to public or private entities that are not engaged in the business of servicing fire extinguishers and which only maintain their own portable fire extinguishers. A Type L licensee may only perform maintenance of stored pressure dry powder and dry chemical fire extinguishers, water type and wet chemical type fire extinguishers and external annual maintenance of halogenated agent and carbon dioxide fire extinguishers.

(b) Every class of license shall be identified by type as specified above according to the act or acts performed by the licensee or by any of the owner's employees. Every licensed concern shall be staffed by qualified personnel and shall be properly equipped to perform the act or acts for the type of license issued.

(c) Any licensed concern may take orders for the performance of any acts for which the concern is not classified provided these orders are consigned to another licensed concern that is classified (based on 595.5 (d)) to perform such acts.

(d) Every licensed concern who is not authorized to perform specific acts shall have on file with the State Fire Marshal reciprocal letters of agreement to perform those specific acts from licensed concerns who are authorized. All required reciprocal letters of agreement shall be submitted to the State Fire Marshal with each original, renewal and status change application for a license. Any changes to reciprocal letters of agreement shall be reported to the State Fire Marshal within 15 days of the change.

(e) A licensee is only authorized to perform those specific acts for which a license has been granted by the State Fire Marshal. Qualifications for a licensee shall consist of having the necessary tools, equipment, service manuals, recharging agents and materials, lubricants, replacement parts and qualified experienced personnel for each specific act. Each licensed concern shall submit evidence of qualifications to the State Fire Marshal with each original, renewal and status change application for license.

(f) A prospective licensee must provide written proof of their service experience in order to be licensed. The prospective licensee shall provide written documentation that they have at least 24 months of experience in the servicing, maintenance, recharging, repairing, hydrostatic testing and installation of portable fire extinguishers. This shall be accomplished by having their fire extinguisher service employer submit letter (s) on their letter head attesting to this experience. This correspondence shall indicate their length of employment, an estimate of the number and type of portable fire extinguishers that they have experience with and a statement that the individual has the necessary experience to obtain a license. Additional documentation may include training certificates from the various fire extinguisher manufacturers and college classes related to Fire Science.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13163, Health and Safety Code.

#### **595.6. Concern Name.**

(a) In the event two applications are received by the State Fire Marshal, both of which propose the use of the same or similar concern name, priority will be given to the application bearing earliest receipt date.

(b) Once a concern license has been issued, there shall be no changes made to the concern name unless the change has been approved in advance by the State Fire Marshal.

(c) The State Fire Marshal shall verify and approve any proposed concern name as it relates to public safety and deceptive practices.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13163, 13164, 13171, 13172, Health and Safety Code.

**595.7. Business location.** For purpose of licensing, post office box numbers, mail forwarding establishments, telephone answering service establishments and other such similar establishments are not acceptable as physical business locations. Licensees shall provide the State Fire Marshal with the actual physical business location from which business is conducted. This address shall match the physical address as listed on the Fire Extinguisher Concern License. Each applicant shall furnish a valid local business license from the local community that matches their physical address as listed on the "Fire Extinguisher Concern License". A licensed concern shall notify the State Fire Marshal of a change of location on a Fire Extinguisher Concern License Status/Change application form and submit a fee of \$125.00.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13163, 13164, 13169, 13170, 13172, 13174, Health and Safety Code.

**595.8. Posting of License.** Every license issued according to these regulations shall be posted on the premises of the licensee's location. Licenses shall be readily available for inspection during regular business hours by the local inspection authority or by the State Fire Marshal.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13173, Health and Safety Code.

**595.9. Certificates of Registration.**

(a) Every certificate of registration shall indicate the type of act or acts to be performed as follows:

(1) Type 1 -- Recharge and maintenance of any or all types of fire extinguishers.  
(2) Type 2 -- Hydrostatic test any or all low pressure non-D.O.T. specification fire extinguisher cylinders.

(3) Type 3 -- Hydrostatic test any or all D.O.T. specification fire extinguishers cylinders.

(b) Any person holding a valid certificate of registration may take orders for the performance of any act or acts for which authorization has not been granted. These orders shall be consigned to the licensed company for which they have a binding reciprocal agreement on file with the State Fire Marshal and who is qualified and authorized to perform such act or acts.

(c) A person holding a valid certificate of registration shall not perform any act for a fee unless the person also holds a valid license or is employed by concern possessing a valid license.

(d) Persons possessing a Certificate of Registration and employed by a licensed concern may perform only those acts which the licensed concern is authorized to do and for which the employee is qualified. In the case of an independent contractor, franchisee, or any other arrangement in which the certificate of registration holder is an independent business concern, a valid license is required to be in the name of the independent concern.

EXCEPTION: Contractual arrangements between persons possessing a certificate of registration and a licensed concern are permitted only if the licensed concern provides the State Fire Marshal written evidence that a contractual agreement is in effect, that the contracted person is insured (as specified in section 595.13), and that the licensed concern will assume full responsibility for the actions of the contracted person with respect to these regulations.

(e) To be issued or have renewed a Certificate of Registration, an individual has to either hold a valid portable fire extinguisher company license or be employed by a company possessing a valid portable fire extinguisher company license.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13175, Health and Safety Code.

**595.10. Examination Procedures.**

(a) Every person who performs any act or acts within the scope of a Certificate of Registration shall pass a written examination which may be supplemented by practical tests when deemed necessary on such act or acts in accordance with the provisions of this chapter.

(b) Any applicant who has failed the examination may re-apply and take another examination not less than fifteen (15) days from the date of the first examination after filing a new application and paying the required fee.

(c) Beginning on January 1, 1994, every four years at time of renewal when deemed necessary by the State Fire Marshal, applicants for renewal of certificates of registration shall successfully pass a written examination as required by Section 13177, Health and Safety Code.

(d) Any applicant failing to take an examination applied for within thirty (30) days of the date of eligibility must re-apply for the intended examination with payment of appropriate fees.

(e) Every person taking an examination for a certificate of registration has the right to contest the validity of individual questions in such examination.

(1) Upon conclusion of the examination process, the person taking the examination may request review of the test with staff of the Office of the State Fire Marshal.

(2) Any challenge as to the validity of individual questions of an examination must be made in writing within 72 hours after taking said examination. Challenges shall state the reason for the objection.

(3) The decision as to the action to be taken on the submitted challenge shall be by the State Fire Marshal and such decision shall be final.

(4) The action taken by the State Fire Marshal shall be reflected in all future examinations but shall not affect the grades established in any past examination.

NOTE: Authority cited: Section 13160, 13175, 13177 Health and Safety Code. Reference cited: Sections 13160, 13177, 13178, 13185, Health and Safety Code.

**595.11. Possession of Certificate of Registration.** Certificates of Registration shall be carried by the person to whom it is issued whenever he or she is performing functions or services regulated by this chapter.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13178, Health and Safety Code.

**595.12. Employer's Responsibility.** Every licensed concern shall annually, within seven days of employment and within seven days of termination of employment, report to the State Fire Marshal in writing, the name, address, and certificate of registration number and type, of every person performing any act of maintenance, recharging or hydrostatic testing of portable fire extinguishers for such licensed concern.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13174, Health and Safety Code.

**595.13. Insurance.**

(a) Any person, firm, or corporation applying for a license or the renewal of a license to service portable fire extinguishers shall furnish to the State Fire Marshal and maintain and keep in force at all times a current policy of public liability and property damage insurance. The policy shall provide limits of bodily injury and property damage of not less than one million dollars (\$1,000,000.00) combined single limit for each occurrence annually as payment for damages to persons or property which may result from or be caused by the negligent servicing of portable fire extinguishers by the licensee, his, her, or its agents, servants, employees or certificate holders performing the service.

EXCEPTION: "Persons, firms, corporations or public entities," not engaged in the business of servicing fire extinguishers for a fee, who only maintain their own portable fire extinguishers.

(b) The certificate of insurance shall provide all of the following:

(1) That the insurer will not cancel the insured's policy without fifteen days prior written notice to the State Fire Marshal; and

(2) That the insured license-holder, and all certificate holders acting as employees under the license-holder, are included as additional insureds, but only insofar as operations within the scope of the licensing requirements are covered; and

(3) That the State of California shall not be responsible for any premiums or assessments on the policy.

(c) Persons, firms, corporations or public entities not engaged in the business of servicing fire extinguishers, for a fee, who only maintain their own portable fire extinguishers shall annually provide to the State Fire Marshal a written statement that the State of California shall be held harmless from any and all actions of their employees who maintain a valid certificate of registration while performing their portable fire extinguisher activities.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13165, Health and Safety Code.

## **Article 9. Tagging, Marking, Labeling and Seal of Registration**

### **596. General.**

(a) Annual Maintenance Tags, Verification of Service Collars, and Hydrostatic Test Labels required in accordance with this chapter shall be approved by the State Fire Marshal and shall conform with the provisions of this Article. One facsimile or printers proof showing both sides of each tag, collar, or label shall be submitted to the State Fire Marshal for approval with each original and renewal application for license, when the licensed concern changes address or license type(s), and whenever tags, collars, or labels are redesigned or revised. Tags, collars, or labels shall not contain false and misleading statements as determined by the State Fire Marshal. Tags, collars, or labels approved by the State Fire Marshal shall not be used for any purpose other than to reflect servicing or selling of an approved portable fire extinguisher.

(b) Annual Maintenance Tag.

(1) Each fire extinguisher that has undergone annual maintenance as required in this Chapter shall have an Annual Maintenance Tag attached in accordance with this Article.

(c) Verification of Service Collar.

(1) Each extinguisher that has undergone maintenance, which includes internal examination or has been recharged as required in this chapter shall have a Verification of Service Collar attached in accordance with this Article.

EXCEPTION: Cartridge/cylinder-operated fire extinguishers do not require a Verification of Service Collar.

(d) Hydrostatic Test Label.

(1) All low pressure fire extinguishers successfully passing a hydrostatic test shall have a hydrostatic test label affixed in accordance with this Article.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13183, 13190.1, 13190.2, 13190.3, Health and Safety Code.

### **596.1. Required Information.**

(a) Annual Maintenance tags shall bear the following information machine printed on them:

- (1) The words "Do Not Remove by Order of the State Fire Marshal" shall be placed at the top of the tag.
- (2) Concern Name as listed on license.
- (3) Concern Business Location in accordance with Section 595.7.
- (4) License Number ("E" Number.) and License Type
- (5) Service Maintenance/New Extinguisher Block.
- (6) Date service performed.



- (7) Certificate of Registration. Provide printed "EE" number followed by space for individuals number (note format Section 596.4.)
- (8) The Seal of Registration of the Office of State Fire Marshal. (See Section 596.11).
- (9) Space or line for signature of person performing or supervising the service work.
- (10) Valid local telephone number for the licensed concern.

(b) The above information shall appear on one side of the Annual Maintenance tag. All other desired printing or information except association or company logos shall be placed on the reverse side of the tag. Association and company logos if printed on the information side of the tag shall be confined to the area of the tag used for the name and address of the licensee.

(c) Verification of Service Collars shall bear the following information machine printed on them;

- (1) The words "Do Not Remove by Order of the State Fire Marshal."
- (2) The words "Verification of Service."
- (3) License Number ("E" Number).
- (4) Date (month and year) maintenance performed.
- (5) Certificate of Registration. Provide printed "EE" Number followed by space for individuals number (note format Section 596.4)
- (6) Space for signature of person performing or supervising the service work.
- (7) Concern name as listed on license.
- (d) Hydrostatic Test Labels shall bear the following information machine printed on them:
  - (1) Concern Name.
  - (2) Concern Address.
  - (3) License Number ("E" Number).
  - (4) D.O.T. RIN (if applicable).
  - (5) Date (month and year) test performed.
  - (6) Means to record the hydrostatic test pressure used in PSI.
  - (7) The letter "S" (for modified test method, if applicable).
  - (8) 6-year maintenance

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13183, Health and Safety Code.

#### **596.2. Size Color and Material.**

(a) Annual Maintenance Tags shall be machine-printed, four and three-fourths inches (4 3/4") in length and two and three-eighths inches (2 3/8") in width with a one-fourth (1/4") deviation for each dimension permissible.

(b) Verification of Service collars shall be made from a single circular piece of uninterrupted material forming a hole of a size that will not permit the collar assembly to move over the neck of the container unless the valve is completely removed. The collar shall not interfere with the operation of the fire extinguisher.

(c) Hydrostatic Test Labels shall be three inches (3") in width and two and one-fourth inches (2 1/4") in length with a one-fourth inch (1/4") deviation for each dimension permissible.

(d) Annual Maintenance Tags, Verification of Service collars and Hydrostatic Test Labels shall not be red in color.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160 and 13183, Health and Safety Code.

#### **596.3 Attaching Tag.**

(a) One Annual Maintenance Tag shall be attached to each portable fire extinguisher in such a position as to be conveniently inspected. The annual maintenance tag may be attached to the extinguisher by means of wire, string, or plastic ties or by the use of a self-adhesive tag approved by the State Fire Marshal. Self-adhesive tags shall be placed in such a position as to be conveniently read but shall not be placed on the front of the extinguisher.

(b) One Verification of Service collar shall be installed on each portable fire extinguisher as required by Section 596 (d) (1) in the following manner;

(1) The Verification of Service collar shall be installed on the neck of the fire extinguisher cylinder while the valve assembly is removed for maintenance. After the valve assembly is replaced and the maintenance completed, the collar will be trapped by the valve assembly so the collar cannot be removed.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13190.1, 13190.2 and 13190.3, Health and Safety Code.

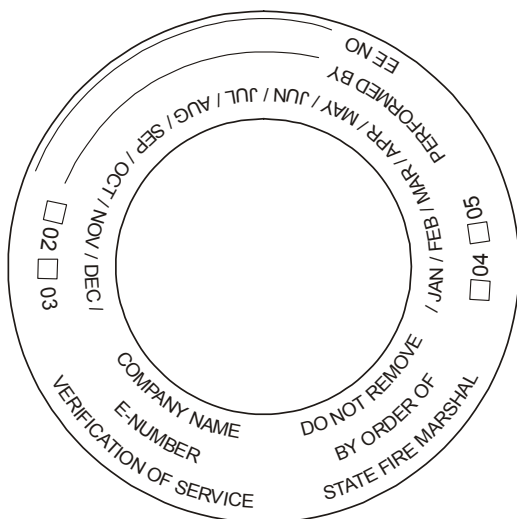
**596.4. Format.** The following format shall be used for all Annual Maintenance tags, Verification of Service collars, and Hydrostatic Test labels subject to the use requirements of Section 596.1, 596.2, and 596.3

(a) The maximum number of blocks identifying the year of service shall not exceed five (5).

NOTE: Dates shown on tag format are examples only.

(b) Every Annual Maintenance tag, Verification of Service collar, and Hydrostatic Test label attached to an extinguisher shall be approved by the State Fire Marshal and conform to this Article.

EXCEPTION: Maintenance tags or Hydrostatic Test labels previously approved by the State Fire Marshal may be utilized until March 31, 2002.



VERIFICATION OF SERVICE COLLAR

**DO NOT REMOVE**  
BY ORDER OF  
**THE STATE FIRE MARSHAL**

16	1	 <b>EE</b> _____ (Cert. Reg. No.)  (Signature)  Name and Address of Firm	DEC	2006
	17		NOV	
18	2		OCT	2005
	3		SEP	
19	4		AUG	2004
	5		JUL	
20	6		JUN	2003
	7		MAY	
21	8		APR	2002
	9		MAR	
22	10		FEB	
	11		JAN	
23	12			
	13			
24	14			
	15			
25	16			
	17			
26	18			
	19			
27	19			
	20			
28	20			
	21			
29	21			
	22			
30	22			
	23			
31	23			
	24			

ANNUAL MAINTENANCE TAG

2002			2003			2004			2005			2006		
1	2	3	4	5	6	7	8	9	10	11	12			
<b>CONCERN NAME</b> <b>ADDRESS</b> <b>E-NUMBER</b>												<b>RIN</b>		
HYDROSTATICALLY TESTED AT P.S.I. <input type="checkbox"/> S - MODIFIED TEST														
1	2	3	4	5	6	7	8	9	0					
1	2	3	4	5	6	7	8	9	0					
1	2	3	4	5	6	7	8	9	0					

HYDROSTATIC TEST LABEL  
D.O.T. SPECIFICATION CYLINDERS

2002			2003			2004			2005			2006		
1	2	3	4	5	6	7	8	9	10	11	12			
<b>CONCERN NAME</b> <b>ADDRESS</b> <b>E-NUMBER</b>														
HYDROSTATICALLY TESTED AT P.S.I.														
1	2	3	4	5	6	7	8	9	0					
1	2	3	4	5	6	7	8	9	0					
1	2	3	4	5	6	7	8	9	0					

HYDROSTATIC TEST LABEL  
NON-D.O.T. SPECIFICATION CYLINDERS

## FORMAT

Authority: Health and Safety Code Section 13160  
 Reference: Health and Safety Code Section 13160, 13183

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13183, Health and Safety Code.

**596.5. Date Serviced and Signature.** On the date service was performed, the date of service, a legible Certificate of Registration number (EE-----) and the signature of the person performing or supervising the servicing shall be written on the tag or collar in the space provided. The signature shall be as defined in Section 557.19 (d) of this chapter. A rubber stamp of name is not acceptable.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13183, Health and Safety Code.

**596.6. Restrictive Use.**

(a) Portable fire extinguishers permanently removed from service due to non-conformance with the requirements of this chapter shall not be tagged except as provided for in Section 577.1(b).

(b) Annual Maintenance Tags, Verification of Service collars, and Hydrostatic Test labels required by this Article shall not be attached to any portable fire extinguisher unless such service has actually been performed or supervised by the person affixing such tag.

(c) The Annual Maintenance Tag as described in Section 596.1(a) bearing the seal of the State Fire Marshal shall not be attached in any manner to any device or system which is not a portable fire extinguisher.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13185, Health and Safety Code.

**596.7. Removal of Tags.**

(a) No person shall remove any tag, collar or label required by this Article from a portable fire extinguisher except when service is performed.

(b) No person shall deface, modify, or alter any tag collar or label required by this Article to be attached to any portable fire extinguisher.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13185, Health and Safety Code.

**596.8. Listed Labels.**

(a) Every portable fire extinguisher shall bear a listed label in accordance with the standards listed in Section 561.2.

(b) The location of Portable Fire Extinguisher labels shall conform to Section 561.2.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code.

**596.9 Unlawful Use of Listed Label.**

(a) Listed labels bearing the rated classification shall not be placed upon any fire extinguisher unless specifically authorized by an agency approved and qualified to perform tests as prescribed in this chapter.

(b) Any label bearing the rated classification of an extinguisher shall not be permanently removed from such extinguisher.

(c) A fire extinguisher which does not bear a label but was in fact previously labeled pursuant to these regulations may be serviced, provided that substantiating evidence of such previous labeling can be documented. "Evidence" shall mean a copy of a bill of lading, sales receipt or other documents specifying purchase details, or other conclusive data attesting to the approval of the fire extinguisher.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code.

#### **596.10 Marking of Fire Extinguishers.**

(a) No fire extinguisher shall have markings stamped, engraved, or otherwise marked on the shell except:

(1) Extinguishers marked at time of manufacture by the manufacturer in a manner found acceptable to an approved testing agency.

(2) High Pressure Cylinders.

(b) Engraving on the skirt, valve, handle or control lever with a engraving pencil is permitted.

(c) Existing aluminum shell extinguishers and existing mild steel extinguishers having engraving on the shell, shall be permitted to remain in service under the following conditions:

(1) Aluminum shell extinguisher is hydrostatically tested biannually to ensure their structural integrity.

(d) Existing fire extinguishers of copper, brass or other similar wall construction which have been engraved on the extinguisher shell with other than a electric engraving pencil or which have been stamped on the shell in any manner shall be removed from service and discarded in accordance with Section 577.1.

(e) All future engraving permitted on any extinguisher shall be performed with an electric engraving pencil.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13162, 13177, Health and Safety Code.

#### **596.11 Seal of Registration.**

(a) The official Seal of Registration of the State Fire Marshal shall consist of a series of concentric circles lettered as follows:

Outer Circle

Upper Half: "Registered"

Lower half: "Fire Extinguisher"

Inner Circle

Upper half: "State of California"

Lower half: "State Fire Marshal"

In the center shall appear five crossed trumpets.

Appended above the outer circle and in a central position shall be a box provided for displaying type of license issued.

Appended below the outer circle and in a central position shall be a box provided for displaying the license number assigned to the concern by the State Fire Marshal.

(b) Every reproduction of the Seal of Registration and every letter and number placed thereon, shall be no smaller than 8 point size to render such seal, letter, and number distinct and clearly legible.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Sections 13160, 13165, 13178, 13183, Health and Safety Code.

**596.12 Permissive Use.** Licensed concerns shall use the Seal of Registration on every Annual Maintenance tag required by this chapter and may use such seal for any of the following purposes:

- (1) Labels for containers of approved portable fire extinguishers.
- (2) Labels for portable fire extinguishers not otherwise prohibited by this chapter.
- (3) Printed matter including advertising matter and copy for publication.
- (4) Letterhead, personal cards and similar stationery.
- (5) Stencils for any of the above.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**596.13 Unlawful Use.** No person or concern shall produce, reproduce, or use this seal in any manner or for any purpose except as provided in this article.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.

**596.14 Cease Use Order.** No person or concern shall continue the use of the Seal of Registration in any manner or for any purpose after receipt of a cease and desist notice in writing from the State Fire Marshal or upon the suspension or revocation of the concern's license.

NOTE: Authority cited: Section 13160, Health and Safety Code. Reference cited: Section 13160, Health and Safety Code.